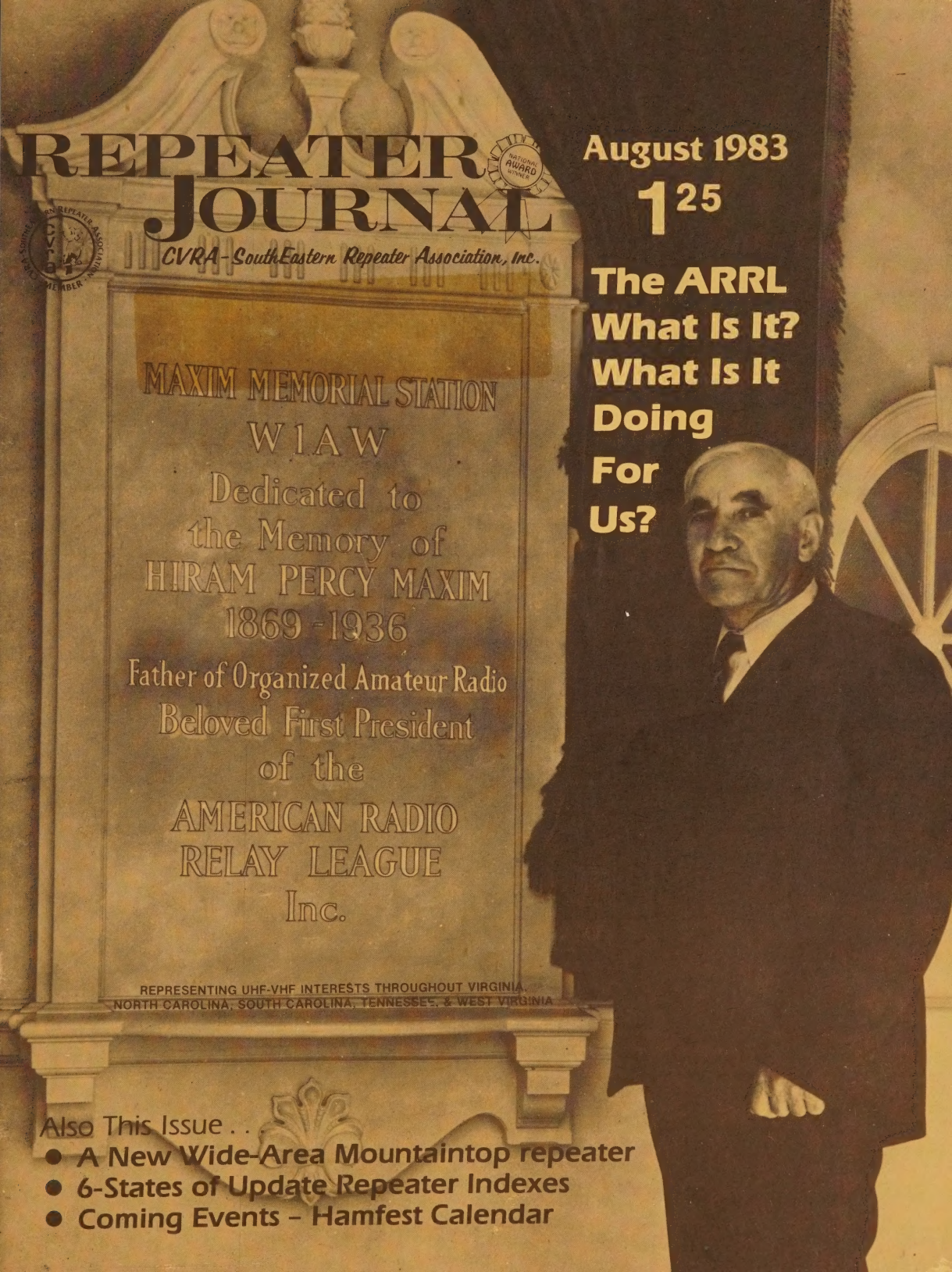
REPEATER JOURNAL

CVRA-SouthEastern Repeater Association, Inc.

August 1983

1.25

The ARRL What Is It? What Is It Doing For Us?



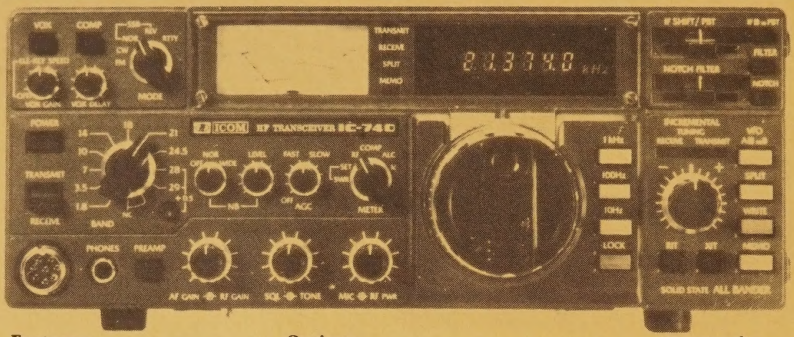
REPRESENTING UHF-VHF INTERESTS THROUGHOUT VIRGINIA, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, & WEST VIRGINIA

Also This Issue . .

- A New Wide-Area Mountaintop repeater
- 6-States of Update Repeater Indexes
- Coming Events – Hamfest Calendar

ICOM IC-740

160-10 Meter Ham Transceiver



See ICOM's Newest entry in its HF Line .....the IC-740! *160-10 meter coverage with WARC bands. A crunch proof receiver plus options for internal power supply, FM, CW and a selection of additional filters. See the IC-740 at your local authorized ICOM Dealer.*

Features:
- All Solid State
- Dual VFO's/Split Operation
- 100dB Dynamic Range
- Adjustable Noise Blanker
- Adjustable AGC with OFF
- Squelch on FM/SSB/CW
- IF Shift and Passband Tuning
- Notch Filter • Tone Control
- Automatic Sideband Selection
- Speech Compressor
- 12 Volt Operation • CW Sidetone
- One Memory Per Band (except 160mtrs)

Options

EX-241	Marker Unit		
EX-242	FM Unit		
EX-243	Electric Key Unit		
EX-45	9 MHz Xtal Filter	500 Hz	-6dB
EX-54	9 MHz Xtal Filter	270 Hz	-6dB
EX-52	455 KHz Xtal Filter	500 Hz	-6dB
EX-53	455 KHz Xtal Filter	250 Hz	-6dB
EX-44	455 KHz SSB Filter	2.4 KHz	-6dB
EX-238	Built-in type power supply		

Accessories

IC-SM5	Desk Microphone
IC-HM10	Microphone with Up/Down Scan
IC-2KL	500W Linear Amplifier
IC-AH1	All Band Antenna For Mobile
IC-HP1	Headphones
IC-SP3	External Speaker
BC-10A	Memory Backup AC Power Supply
IC-AT100	Automatic Antenna Tuner (100W)
IC-AT500	Automatic Antenna Tuner (500W)

ICOM IC-R70

100KHz-30KHz General Coverage Receiver

Now a general coverage HF receiver from ICOM. Affordably priced and incorporating features not found on receivers priced twice as much... The R70 is a true performer! *Excellent selectivity provided by multiple crystal filters and adjustable bandwidth, with ICOM'S expanded range passband tuning system which gives excellent interference rejection in SSB and AM.*

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- 10Hz Resolution
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- Dual Antenna Inputs

Options

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EX257	FM Option
EX261	Transceive Unit (works with IC-720 or IC-720A)

12 Volt Plug Kit

Accessories

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SP-3 External Speaker

Whether you are a ham operator or SWL, the features of the R70 will make listening to your choice of stations a snap. The R70 has ICOM'S DFM (Direct Feed Mixer) making it virtually immune to intermodulation distortion or cross modulation, and its receiver design maintains excellent sensitivity and wide dynamic range.

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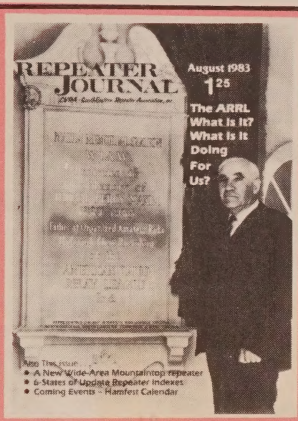
All stated specifications are approximate and subject to change without notice or obligation. All ICOM radios significantly exceed FCC regulations regarding spurious emissions.



ON OUR COVER

1938 ARRL President, Eugene C. Woodruff, W8CMP unveils the Maxim Memorial Plaque at ARRL Headquarters during the dedication of the new W1AW on September 2, 1938. See our stories this issue by guest writers, Vic Clark, W4KFC, President of ARRL, Gay Milius, W4UG, Director Roanoke Division, John Kanode, N4MM, Vice-Director Roanoke Division and Steve Kercel, AA4AK, Asst. Dir., Delta Division. They all give you the inside story of what the ARRL is doing for us and what is planned for the future. (Photo ctsy. ARRL)

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REPEATER JOURNAL

CVRA-SouthEastern Repeater Association, Inc.

AUGUST - OCTOBER, 1983
VOLUME 12, NO. 3
ORGANIZED IN 1971
"IN OUR 12th YEAR!"

Editorial Comment

Finally. . .There May Be Some Teeth In It

Recently in a surprise letter from James C. McKinney, chief of the Private Radio Bureau of the FCC told an Amateur that indeed a person could receive a Notice of Violation from the FCC for operating an interfering "non-standard or uncoordinated" channel on 2-meter FM.

This landmark statement by McKinney may be just what this entire nation has needed for years for the Amateur radio Service--authority and backing. For years various repeater councils, the ARRL and small Frequency Coordinators have struggled trying to keep some semblence of order in our VHF spectrum. Many areas were successful, but some have failed.

The main problem we Repeater Councils, and even the ARRL had, we had to depend on cooperation within repeater owners, repeater users, anyone wanting to put a repeater on the air, or anyone operating simplex. We had to hope they would follow the "gentleman's agreement" as far as channelizing was concerned. If they didn't we had no options. We could try to work it out, but if the person refused to cooperate, the innocent users suffered and the innocent owner of a repeater usually had to change frequencies.

This just may be coming to a halt. If McKinney and the FCC will just follow through with their statement, and indeed issue a formal statement to the entire amateur community that they will send violation notices to persons who refuse to follow the trend of the nationwide coordination system and local and area coordinations, we just might prevent future problems from would be troublemakers.

CVRA-SERA territory has been quite fortunate from the beginning. We have had few instances of people refusing to follow gentlemen's guidelines. But as the 2-meter spectrum fills up, uncoordinated repeaters put on the air by persons who refuse to consider coordination will cause more problems in the future.

McKinney's statement is coming just in time. I hope he will go ahead and give Repeater Councils and the ARRL the clout needed to fulfill our goal of an area of non-interfering repeaters. This program shouldn't be costly for the FCC, no rules changes are really necessary. Part 97.75 and part 97.115 cover the situation well. These two parts deal with conducting your operation in a gentlemanly manner, and avoiding wilful and malicious interfering with other stations.

Mr. McKinney, we thank you for step one. Now, please if you will, let's follow through and give rulings that allow repeater councils and the ARRL some backbone to exert the necessary pressure to keep our 2-meter band fun to use. You have our support on this one!

—Wayne C. Williams, Editor

REPEATER JOURNAL

AUGUST – OCTOBER, 1983

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About the Repeater Journal . . .

The CVRA-SERA REPEATER JOURNAL is published quarterly, during the months of February, May, August and November of each year and mailed free to members of CVRA-Southeastern Repeater Association, Inc., a non-profit coordinating organization made up of repeater owners and users. Permission is granted for use of material contained in the REPEATER JOURNAL, provided proper credit is given. The REPEATER JOURNAL Editor will swap newsletters with other Repeater Councils and News organizations on request. The REPEATER JOURNAL press run is 4,500 copies with circulation membership in excess of 3,900 and is entered as Third Class Mail at the Post Office in Greensboro, N.C. REPEATER JOURNAL copies may also be obtained at most area hamfests for $1.25 per copy. All news and Newsletter exchanges should be mailed to the Editor and Publisher, Wayne C. Williams, K4MOB, 600 Lakedale Road, Colfax, N.C. 27235.

About Associate Membership

Repeater users and Amateurs are invited to join CVRA-SERA as Associate Members. A membership fee of $4.00 per year will enable members to support the organization and receive the "Repeater Journal". Note: Associate Membership deadlines are on the 15th of the month preceding months of publication – Jan. 15, April 15, July 15 and October 15. Persons joining or renewing their membership must have their application into the Greensboro Post Office Box by these deadlines to receive the next upcoming Repeater Journal in February, May, August and November. Memberships received after any deadline will not receive the next to be published Journal, but instead will receive the forthcoming issue the next quarter. Memberships received at hamfests will receive a current "Repeater Journal" as long as supplies are available and the next regularly scheduled issue through the mail.

About Full Repeater Membership . . .

Officers and Directors are elected from members of CVRA-SERA Full Membership. Any repeater owner or club may join our organization as a Full Member by filling out an application and submitting it with $8.00 annual membership fee. Two representatives are named for each membership and each receive the "Repeater Journal." The Full Member repeater is appropriately recognized as a full member repeater in our repeater index in the Journal. Full Memberships all expire on December 31 each calendar year.

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DIRECTORS - VICE DIRECTORS AND THEIR ASSISTANTS LISTED BY STATE ON BACK COVER

About CVRA-SERA . . .

CVRA-Southeastern Repeater Association, Inc. is one of the largest Repeater Organizations in the United States. In our 12th year of operation, the Association is positive proof that coordination efforts have paid off in the Districts it serves. Two of our States are fifth and sixth in the Nation in numbers of Amateur repeaters. Our area is virtually interference free due to cooperation and coordination efforts of our Amateur repeater owners and CVRA-SERA over the past 11 years.

A REPEATER JOURNAL SPECIAL SECTION

ARRL – WHAT IS IT?

ARRL—The Best Thing Going For Us!

Vic Clark, W4KFC, new President of ARRL, served as our ARRL Roanoke Division Director during the years 1967-1973, later as ARRL Vice President for six years. He was a member of the team that defended amateur radio under auspices of the International Amateur Radio Union (IARU) at the World Conference in Geneva in 1979. He later served as chairman of ARRL's long range planning committee that initiated a number of important organizational changes in the League's struction. Vic has been a support of CVRA-SERA from its early organization days and one of only two ever elected to this organizations life membership.

When the Repeater Journal staff asked Vic for information to publish a special ARRL section, we only had to ask once. We are pleased to present to you this section to enlighten you on what the ARRL is today and where they are going. (Editor)

—by Vic Clark, W4KFC
President, ARRL

Whether we're into repeaters, satellites, DXing or traffic handling, we are all fellow radio amateurs with a common stake in the welfare and future of the game. In one way or another, nearly every one of us cherishes and seeks to give something back to what we can quickly agree is one of the greatest avocational pursuits known to man.

The folks we meet and lessons we learn through our participation in amateur radio benefit us in other facets of our lives and in our jobs, as well.

We belong to nets and repeater associations, clubs and special technical interest groups, and we're pretty good at working together to make things happen. Our repeaters, our clubs and our on-the-air activities all respond in one way or another to our public service charter.

When it comes to the matter of national representation, however, not all of us perceive the importance of co-operative action. Some of us find it possible to shrug off any suggestion that we have a responsibility to act in concert on a national basis.

Yet the survival of amateur radio over the past 70 years and to this point is the direct result of representation provided by our national organization . . . ARRL.

"Aha," you may say, "You're the president, and naturally you can be expected to make claims like that."

Yes, I am the temporary incumbent of that office . . . but it is because I believe in the **need** for ARRL, just as I believe in CVRA . . . and I am proud to be a life member of both organizations. Let me tell you why.

First of all, we have to work together to get results that are beyond attainment for individuals. I happen to subscribe to the point of view that ARRL is "us," and not "them." We, the members **are** the ARRL. We elect the directors from our midst; we advise them and send them to represent us in ARRL affairs and to develop and put into effect ARRL organizational policies that meet our needs and reflect our views.

"So what is Newington?" one may ask. Newington, Connecticut, is where **we** have established our corporate headquarters, where **QST** — our national journal — is put together, and where just over 100 salaried staff members carry out the tasks that we, the members, have hired them to do.

Continued on Page 9

Spread The Word

—by Gay E. Milius, Jr., W4UG
Roanoke ARRL Dir.

The ARRL is at present very fortunate to have at its helm two of the most dedicated Amateurs who have had a vast amount of experience in amateur affairs and have learned to understand that YOU, WE and ALL US "HAMS" are the LEAGUE! This you have read in the article by Vic Clark W4KFC elsewhere in this Journal.

My theme herein is directed to those Amateurs who have seen the necessity for national representation which the League affords us. And I would like to request those present Members of the League to help us spread the word to those Amateurs who have difficulty in visualizing the important role the League plays in our service and hobby.

I am anxious to get that "word" spread from the club Newsletters, through club meetings to the individuals directly at the club meetings and on the air. I would like you Members to make cogent replies to the other Amateurs who believe it "smart" and "clever" to continually find fault with the League and castigate it at every turn.

Of course we all know there is nothing perfect where human nature is concerned and as Vic states no one claims the League to be perfect. But with that firmly in mind it is my purpose to show the recalcitrants that the League needs them and they need the League.

To that extent I would like to see the League logo, the Diamond, appear on the masthead of every newsletter of the affiliated clubs. I would like to see within the contents of those Newsletters something setting forth League activities and League services to its members. Not only should we show the non-members that if it were not for the League they

Continued on Page 6

THE TWENTY SIXTH ANNUAL

SHELBY N.C. HAMFEST

"The Grand-Daddy Of Them All"

- REGISTRATION:
  $4.00 At The Gate
  $3.00 for pre-registration-
  See Enclosed Form
- Free Parking space on the grounds, space for more than a thousand cars.
- Special Close-In parking for the disabled.
- New Paved Fairgrounds
- Food service on the grounds... Shelby's famous Barbecue and a variety of other food and snacks...with most of Shelby's fine eating places within one mile.
- Trailer Facilities, 40 sites with full hook-ups, water, sewer and electricity. Ample power for your Air-Conditioners. Unlimited field space for self-contained trailers and Tent Campers.
- Bingo and Arts & Crafts for the Ladies
- Clean, Sanitary Rest Rooms
- 15 ACRES OF FLEA MARKET. Plenty space for all! TAILGATERS MUST REGISTER. Some undercover space available with rental of table. No overnight security.
- New Equipment Dealers as well as used dealers may have inside space with power available and overnight security at a nominal charge.
- Additional Inside Space Available This Year.
- Easy to locate as the site is on Business U.S. 74 and N.C. 180 on the East side of Shelby.
- Remember this, "NO member of the Shelby Amateur Radio Club or any member of their family is eligible to win a prize.

REGISTER EARLY! ---

SPONSORED BY SHELBY AMATEUR RADIO CLUB
FOR FURTHER INFORMATION - Contact
David Rose, WD4DJA, P.O. Box 2206, Shelby, N.C. 28150
Telephone (704) 487-5654. Evening Calls Please.

TALK IN
146.28-88 147.945-345
146.52 Simplex

SEPTEMBER 3rd and 4th

TO BE HELD AT
CLEVELAND COUNTY FAIRGROUNDS
LAST YEARS ATTENDANCE OVER 8,000
EXPECTING OVER 12,000 THIS YEAR

On US 74 Business on the east side of Shelby

Main Exhibition to Have Three Main Dealer Rows Open

Reserve your Labor Day Weekend To Spend With Your Friends At Shelby Hamfest!

SATURDAY PRIZE: ICOM IC-25H With Power Supply Plug Magnetic Mount Mobile Antenna

SUNDAY 1st PRIZE: KENWOOD TS-830S Low Band HF Transceiver,

SUNDAY 2nd PRIZE: KENWOOD TS-530S Low Band HF Transceiver

SUNDAY 3rd PRIZE: KENWOOD TS-7950 2-Meter Transceiver

ADVANCE REG. PRIZE: Two Winners!! ICOM IC-2AT 2-Meter Handhelds

PLUS many, many more prizes.

SPECIAL PRIZE: ICOM IC-2AT

To Be given away Saturday By a special Drawing. To Register for this drawing, YOU MUST bring one of your QSL cards and deposit it in the SPECIAL PRIZE BARREL. ONE card per ham, and you MUST be present to win in this drawing.

YOU DO NOT HAVE TO BE PRESENT TO WIN ANY MAIN PRIZES!

AREA MOTELS/HOTELS

Some of the motels in the area are listed below. They recommend that you call well in advance as their week-end business is good and reservations may be a problem.

SHELBY - Holiday Inn, Governors Inn, Hagers.

KINGS MOUNTAIN - Holiday Inn

GASTONIA - Mid-town, Howard Johnson, Holiday Inn, Scottish Inn

GAFFNEY - Holiday Inn

FOREST CITY - Gardo's, Isothermal, Goode's

LINCOLNTON - Town & Country

HICKORY - Howard Johnson, Holiday Inn, Mull's, Ramada Inn.

Pre-Registration Form I would like to pre-register for

The Shelby Hamfest

Enclosed is my check for:

_____Hamfest Tickets @ $3.00 Each . . . . . $ _____

Age 12 and Under FREE All Tickets good for both days

Name _____Call _____

Address _____

City _____State _____ Zip _____

Mail Check & This Form To:

BETTY SWITZER, N4BCN, P.O. BOX 2206, SHELBY, N.C. 28150

RJ-8

Early ARRL Communications Functions

TENNESSEE operators work hard in this photo. The men are identified as Charlie Rumley, WB4CXM; Jerome Christian, WA4DEU and Charlie Vaughan, K4UWH. The event was unknown, but the photo is dated August, 1961. From the CVRA-SERA files, Rumley now resides in Johnson City, and Christian, now KE4FH lives in Johnson City, (Photo by Herald & Tribune, Jonesboro, Tn. - Supplied by ARRL)

Spread The Word

from Page 3

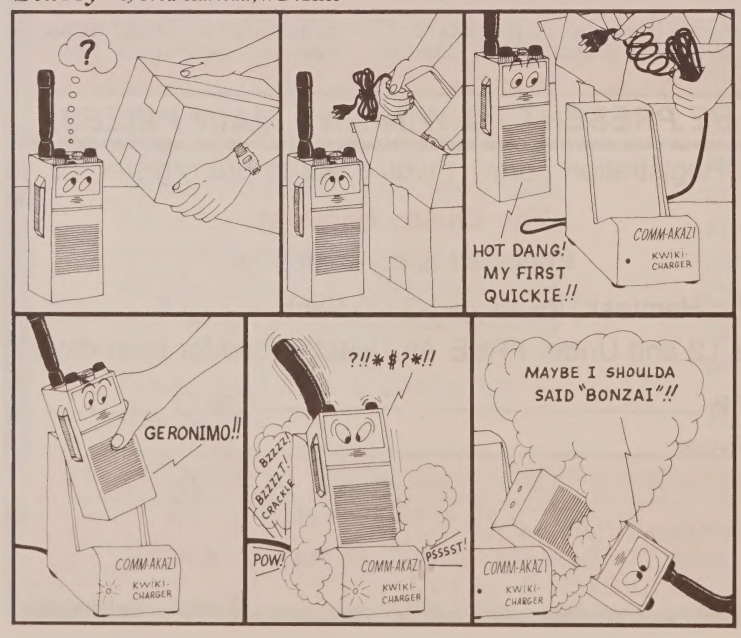
would not enjoy the many frequencies we now use but we would not have many of the services which we take for granted: such as QSL Bureaus, technical advice always available, W1AW, training aids, club liason, testing of commercial products operating awards and contests etc. More important at this time is the League's and OUR Washington Representative who is bringing Amateur Radio to the attention of Congress, Senate and governmental bureaus so that when we speak as Amateur Radio Operators we are and will be recognized.

Furthermore, of interest to the VHF/UHF aficonados the ARRL has two Advisory Committees: VHF/UHF and VHF Repeater. The Roanoke Division representative on the former is Ted Mathewson W4FJ; for the Delta Division Bob Taylor WB5LBT is the rep while for the Great Lake Division David Smith W8YZ is on the committee. On the latter Advisory Committee are the CVRA Journal Editor Wayne Williams K4MOB, for the Roanoke Division, Delta Division Al Oubre K5DPG and for the Great Lakes Division John Weeks, Jr. K8RT. You can communicate with these gentlemen directly or via Headquarters ARRL which will forward your cooerspondence. The Advisory Committees help the Board of Directors by making recommendations thereto when requested to do so or by generating internal agenda on problems which may affect Amateur Radio in their fields.

All of the above is being accepted by the active Amateurs but not all of the active Amateurs are League Members.

Help spread the word and sign up new members.!

Stubby *by Fred Hurteau, WD4SKH*



A Letter To The Trustee

—from "Quarterwave"
Twin City FM Club, Minn.

Dear Trustee:

I don't want to be considered a hitchhiker on the 16-76 repeater, so, enclosed you will find my check for continuance in the TCFMC repeater group. If you don't know what a hitchhiker is on a repeater, I will tell you. The following came from the 25-85 "Open Forum" reprinted with permission:

When someone on the side of the road jerks his thumb, here is what he is saying: "If you will furnish the automobile, the gasoline, the tires, the battery, and pay all the car licenses, I am willing to ride with you. However, if I get hurt, I am quite likely to sue you for damages."

It seems sometimes that there are a lot of "hitchhikers" on the 16-76 repeater. For there are those whose actions say: "If you'll furnish the antenna, a tall building, power, repeater equipment, and people to run the organization, then I'll make use of it when it's convenient to me. But please don't ask me to get involved. I'm really too busy to serve on a committee or take any responsibilities. And please don't ask for money — it's been a bad year. Just make sure the repeater keeps working right or I'll tell the whole world what I think of your outfit." When you look in the mirror, what do you see? — the driver or the hitchhiker?

A Fellow Member

ARRL And The VHF Operator

—by Steve Kercel, AA4Ak
Asst. Dir., Delta Division

WHAT HAS ARRL DONE FOR ME?

What has the ARRL ever done for me? Twenty-five dollars is just too much to pay for QST. All that money is going to a bunch of overpaid bureaucrats. Everybody knows that the League doesn't do anything for the VHF operator. On top of that, nobody in the ARRL listens to what I have to say anyway.

Have you ever heard anybody say such terrible things? Have you said them yourself? If so, you, along with numerous other amateurs, have fallen victim to one of the greatest misunderstandings that has ever beset amateur radio.

It is time to set the record straight, and for individual amateurs to examine the facts. Many people are surprised when they realize what the true situation is. Most are completely unaware of what a profound effect the ARRL has on their operations, whether or not they are League members.

Many amateurs view twenty-five dollars sent to ARRL Headquarters as buying a year of QST. However, this is simply not the case. The official League line is that half of the dues go to QST. That turns out not to be the case either. If you compare advertising revenues with production costs, you will find that QST practically pays for itself. Very little of your dues goes into the production of QST. Your dues go to pay for services to the entire amateur radio community, and QST is thrown in to dues-paying members at no extra cost.

QST contains much of interest to VHF/UHF operators. This includes regular columns on FM/Repeaters, UHF operating, moonbounce, exotic propagation, and microwaves. Also consider that QST is the only up to date source of information on public service and emergency communications, most of which is conducted on VHF repeaters. QST brings the VHF operator the latest news on events that affect his own day-to-day operations.

Some amateurs are unhappy with the feature articles in QST. Complaints include such things as not enough construction articles, too many construction articles, not enough emphasis on VHF, too much emphasis on VHF and so on. There are those who feel that the magazine is poorly done, but they cannot say how they would like to see it done differently. One thing is certain. If you quit the League, it will do absolutely nothing to improve QST or any other aspect of the ARRL.

Suppose you do want to see changes made. What do you do? Call Headquarters staff, right? Wrong!!! The system does not work that way. The staff is the hired help we have taken on to cary out the rules made by the Directors. If you want help on some specific matter the staff will be immensely helpful, but if you wish to see changes made, you need to contact the people who make the rules.

Those people are the sixteen Directors. They are unpaid volunteers who are elected by us, the membership. They are answerable to us. The Directors are anxious to hear what you have to say and are responsive to membership input. If you live in Tennessee, you are in the Delta Division and the Director is:

Clyde Harlbert, W5CH
P.O. Box 541
Biloxi, Mississippi 39533
(601-863-5709)

If you live in the rest of the CVRA-SERA area, you are in the Roanoke Division and the Director is:

Gay Milius, W4UG
1416 Rutland Drive
Virginia Beach, Virginia 23454
(804-481-5095)

Fine, you say, but the Directors are chosen from the general amateur population. What do they know about the special needs of the VHF/UHF operator? The point is valid and the Directors recognize it. For that reason each Director has an advisory committee to represent the specialized interests of amateur radio in his division. Each Director has **two** advisors on the special needs of VHF. These are the VHF and Repeater Advisory Committee member (VRAC), and the VHF/UHF Advisory Committee members (VUAC). The Advisory Committee members are recognized experts in their area. They are appointed by the Director to advise him in these specialties. Since they have the inside track to the Director, these are the people you need to convince if you want to see changes made.

The Advisory Committee members are as follows:

Delta Division:
VRAC
Al Oubre, K5DPG
Star Route A Box 185E
New Iberia, Louisiana 70560

VUAC
Bob Taylor, WB5LBT
10715 Waverland
Baton Rouge, Louisiana 70560

Roanoke Division:
VRAC
Wayne Williams, K4MOB
600 Lakedale Rd.
Colfax, North Carolina 27235

VUAC
Ted Mathewson, W4FJ
1525 Sunset Lane
Richmond, Virginia 23221

Like the Directors, the Advisory Committee members are unpaid volunteers. In fact, most of the work of the ARRL is done by unpaid volunteers. There is a myth afoot that the League has a large

(Continued on Next Page)

THE ROSEVILLE flood in 1950. W8AZR and his wife in car, sending traffic by short wave amateur radio, the only means of communication in the area. Standing outside the car are W8LQB and a newspaper photographer. W8AZR's wife took traffic down in short hand to speed up things. (Photo ctsy. ARRL)

VHF Operator *from Page 7*

and overpaid staff, and that is where the money goes. The truth is that Headquarters staff is quite small, about 120 employees to attend to the needs of 400,000 amateurs. It is also a fact that the staff employees are paid about half of what they could earn doing the same kind of work in industry. The staff has two functions, to assist the volunteer labor in carrying out the day-to-day work, and to prevent amateur frequencies from being gobbled up by non-amateur users.

Does the ARRL affect your day-to-day operations? Absolutely yes! The League provides many opportunities for you to enhance your enjoyment of VHF amateur radio. Do you check into a VHF Net? Your local net is almost certainly conducted under the auspices of the ARRL National Traffic System. Are you involved in emergency communications? If so, you are no doubt a member of your local Amateur Radio Emergency Service organization, another ARRL function. If you are involved with satellite communications, your operations are greatly simplified by the satellite bulletins transmitted many times daily by W1AW. If your interest is VHF DX, then the W1AW propagation bulletin is a vital piece of information. If you are a VHF contester, then the various ARRL sponsored VHF contests are probably the most exciting weekends of the year. In these and many other ways the League affects the day-to-day operations of the VHF amateur.

These activities are noteworthy for a number of reasons. First, they significantly influence almost all operators. Second, they are paid for with League money. Third, by their very nature, they are open to all amateurs, members and non-members alike.

While you are pondering whether or not the League does anything for you, consider another point, Have you been to a good hamfest lately? Very few amateurs realize how heavily the League subsidizes hamfests. Consider what the League provides for hamfests, free computer generated mailing labels, free announcements in QST, half price on paid advertising in QST, and expense paid visits by ARRL officials and employees, to name a few. Indeed, the alert hamfest chairman can very well end up with as much League money invested in the hamfest as the sponsoring organization puts into it. Yet, who ever heard of a hamfest that only admitted League members.

All amateurs are profoundly affected by another little noticed and little appreciated ARRL service, the preservation and survival of amateur radio. Without the League there might not be such a thing as amateur radio as we know it. There are many radio services who would like to have our frequencies, and many institutions that would like to abolish amateur radio. This is a never ending problem that requires the attention of the paid professionals at Headquarters staff from day to day. A couple of specifics of interest to VHF operators are the League's action a few years back to save the 220 mHz band, and the current efforts to get cable TV operators out of the 144 and 220 mHz bands. it is in interaction with governments and other powerful institutions that the League spends most of our money. If they ever stop, amateur radio might be squeezed out of existence within a few months. Twenty-five dollars a year is each amateur's share of the cost of the survival of amateur radio.

Consider again the opening question of this article. What has the ARRL done for me? The answer is simple. The influence of the League makes it possible for you to get on the air. That is what you are getting for twenty-five dollars. QST and all membership services are incidental. If you are pondering whether or not to join the League, or whether or not to dop out, ask yourself if the survival of amateur radio is not worth the cost.

JOIN ARRL

BENEFITS FOR YOU: QST, QSL Bureau, Awards (DXCC, WAS, etc.), Low Cost Insurance, Operating Aids, Government Liaison and more—Much more! For You!

USE THIS COUPON OR A FACSIMILE AND MAIL TODAY.

The American Radio Relay League, Inc.

GAY E. MILIUS, JR., W4UG
DIRECTOR, ROANOKE DIVISION
AMERICAN RADIO RELAY LEAGUE
1416 RUTLAND DR.
VIRGINIA BEACH, VA. 23454

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$25 in U.S./$30 in Canada/$33 elsewhere (U.S. funds)
Licensed amateurs, age 17 or under or age 65 or over, upon submitting proof of age, may request the special dues rate of $20 in the U.S. ($25 in Canada, $28 elsewhere, in U.S. funds)

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THE REPEATER JOURNAL

ARRL – WHAT IS IT?

Continued from Page 3

"But, ARRL does things the way **they** want to and doesn't listen to us," you may say.

Time was when the ARRL staff and general manager exerted what many of us consider to have been excessive authority over League affairs and were less than attentive and responsive to membership desires. The board of directors was weak and met infrequently. The top elective offices tended to be more symbolic than functional.

All of that has changed in a series of developments over the past several years. The board of directors now calls the shots in ARRL; the officers are actively involved in day-to-day decisions and activities of the League. We have six influential volunteer advisory committees recommending actions and refinements to existing programs. Now we're in the midst of an organizational alteration aimed at elevating the ARRL sections to a position of greater importance and influence and bringing clubs into closer contact with the national organization.

Today, ARRL belongs to the members as never before. Membership is vastly more than a magazine subscription, for ARRL staffers and volunteers alike are active daily in our behalf in the halls of Washington, safeguarding our interests locally in matters of RFI and antenna tower legislation, representing our interests internationally and at World Administrative Radio Conferences, organizing emergency communications activities and publicizing the many public service contributions of amateur radio, supporting amateur satellite activities, developing training guides and conducting courses for newcomers to amateur radio, sending code practice via W1AW, testing products aimed at the amateur market, dispensing news of developments affecting amateur radio, operating QSL bureaus, managing and issuing a host of achievement awards, monitoring our bands so that intruders are promptly reported to authorities, and much more.

As a fellow ham, I am privileged to look back on nearly fifty years of active participation in amateur radio, having logged hundreds of thousands of QSOs. Obviously I am sold on amateur radio. But I am "sold" as well on the need for all of us to be working together under a common banner. We want to keep this great game going for future generations, and the way to do it is to become involved and make our organizations work for us . . . whether it is a local club, CVRA or ARRL.

And as for ARRL . . . Pogo would have put it this way: "We have met the ARRL, and **they** are **us**."

Roanoke Division LPM-83 Was Outstanding Success

—by John Kanode, N4MM
ARRL Vice Director, Roanoke Division

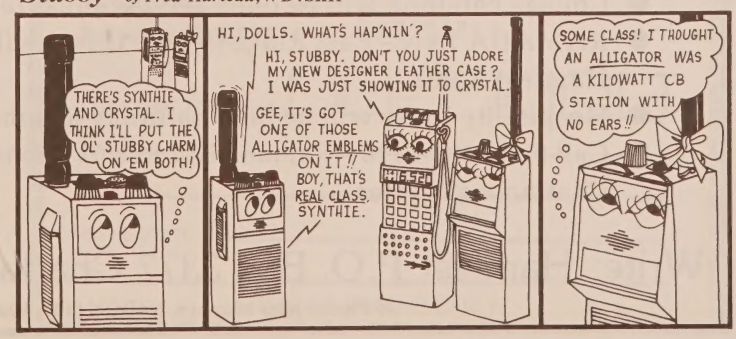
The 1983 ARRL Roanoke Division League Planning Meeting which was held in Myrtle Beach, South Carolina was well attended with representatives from all four states. The meeting was productive and was blessed by excellent weather. The Grand Strand Amateur Radio Club did an excellent job hosting the meeting. Jack Wood, WA4KGN did a super job in organizing the affair. Many thanks to all of the members of the Grand Strand Amateur Radio Club who helped with the event.

Opening remarks were made by Gay Milius, W4UG; Vic Clark, W4KFC; Bob Halprin, K1XA and John Kanode, N4MM. All four Section Managers/SCM were present and gave a report on activities within their sections. Vic Clark, ARRL President gave an excellent talk on the state of Amateur Radio across the nation. Bob Halprin from ARRL Hq. gave us an update of items of interest going on at ARRL Hq. Bill Grenfell, W4GF gave a FCC update and answered questions in regards to FCC matters. The Section Emergency Coordinators gave their reports followed by the Section Traffic Managers. Much discussion on many matters took place. Special Service Clubs was one item of interest. No code and volunteer exams prompted much debate. Director Gay Milius gave a review of actions taken at the April ARRL Board Meeting. Also covered were some items that might come up at the October ARRL Board Meeting. The highlight and the most important part of the LPM was conducted Sunday morning by John Kanode, N4MM; Gay Milius, W4UG and Vic Clark, W4KFC. This was the open forum and resolution session. Eleven resolutions were presented and many good ideas were approved for possible action at the next ARRL Board Meeting. Some of the resolutions were:

- With proper membership input, have the appropriate ARRL committee study ways for better utilization of the General Class phone sub bands and report their recommendations to the ARRL Board for possible action.
- Have training material for Novices and material sent to prospective new amateurs changed or amended to put greater emphasis on the public service aspect of Amateur Radio.
- Have ARRL Section Technical Coordinators brought into the mainstream by allowing them on a voluntary basis to provide technical review articles on equipment purchased by ARRL Hq.
- That ARRL support the concept of nationally linked repeaters for the purpose of talks with League Officials and to provide technical help through write ups in QST.
- Explore the possibility of developing a Federation or Council of clubs in all Roanoke Division States. Follow the pattern established in West Virginia. (This was passed and left up to the SM/SCM to investigate)
- Have ARRL investigate the possibility of creating a Host Program that would host foreign amateurs and their families in the homes of US amateurs.
- Have an ARRL publication created that gives all the info and requirements and rational for Special Service Clubs.
- Should the ARRL become the VEC under the proposed Volunteer Exam Pro-

Continued on Page 30

Stubby *by Fred Hurteau, WD4SKH*


THERE'S SYNTHIE AND CRYSTAL. I THINK I'LL PUT THE OL' STUBBY CHARM ON 'EM BOTH!
HI, DOLLS. WHAT'S HAP'NIN'?
HI, STUBBY. DON'T YOU JUST ADORE MY NEW DESIGNER LEATHER CASE? I WAS JUST SHOWING IT TO CRYSTAL.
GEE, IT'S GOT ONE OF THOSE ALLIGATOR EMBLEMS ON IT!! BOY, THAT'S REAL CLASS, SYNTHIE.
SOME CLASS! I THOUGHT AN ALLIGATOR WAS A KILOWATT CB STATION WITH NO EARS!!

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October 22 & 23, 1983

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Spacious Dealer Area Inside
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Top Prizes To be Awarded

Saturday Main Prize: TEN-TEC HANDHELD 2-Meter Xcvr.
(You Must Be Present To Win Saturday Main Prize)

1st Prize - Ten Tec Corsair w/power supply
2nd Prize - Icom IC 25A
3rd Prize - Icom IC-2At

You do not have to be present to win Sunday Main prizes

- Activities Include: Forums, contests and non-ham activities
- College cafeteria will be open serving breakfast & Lunch Both Days.
- RAMADA INN - East Ridge (I-75 & US41) will be offering special Hamfest Rates.
- Hospitality Party will be held Saturday October 22 at Ramada Inn.
- Call (615) 894-6110 - Ramada Inn Reservations, ask for "Hamfest Chattanooga" rates.

Write: Hamfest P.O. Box 3377 Chattanooga TN 37404

Or Phone Nita Morgan, N4DON (404) 820-2065

An Editor's Viewpoint Of ARRL

-by Wayne C. Williams, K4MOB

I've never really come out in support of ARRL in this magazine before, mainly because I never really felt it was necessary, or it was the thing to do.

But now, I officially go on record -- "I support ARRL and what they are doing."

This may not be an earthshattering statement to many, but to me the ARRL has finally "shown its colors" to the Amateur community. Over the years ARRL has done very good things for the amateur population. They have represented us well before the FCC, WARC, and Congress. Out of headquarters have been coming some very useful tools for assisting Amateurs in upgrading, building something, learning what is happening, and FCC information. They are tops in coordinating Nets, clubs, bandplans, training, and education.

The big difference I see in ARRL now--the President, Vic Clark and his staff have "come out" and met the people. I have a warm feeling that Vic and our Directors are working a little harder for me now. I feel they have come out and asked "What do you want to do"--and then gone back and done it.

I certainly am not knocking previous ARRL administrative officials, but for some reason, I just didn't seem to ever get to know them.

Clark has traveled extensively since his election, he has attended several hamfests in CVRA-SERA territory. He has participated in a nationwide Amateur repeater linkup broadcast which was most impressive.

John Kannode, vice-director for the Roanoke District writes in this issue of the Journal of the "Outstanding" success of the Roanoke Division LPM at Myrtle Beach. The ARRL President again found time to attend and participate. This shows the great concern and interest our new ARRL officials have for us, the Amateur populace(members of ARRL or not)

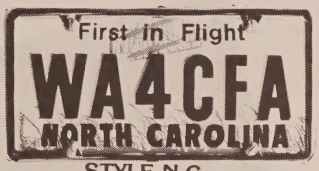
If you read FCC dockets and rule making notices, notice how many lately the FCC quotes the strong stand of the ARRL. I think even the FCC is seeing a difference at Headquarters.

CVRA-SERA is an unofficial representative of ARRL. Our membership which is comprised of repeater owners and repeater users of course are representing ARRL through their affiliated clubs and individual memberships. CVRA-SERA membership records indicate that in excess of 50% of our members are members of ARRL. To you other

(Continued on Next Page)

New! **PERSONALIZED LICENSE PLATES**

Now You Can Display Your Call On Your Car



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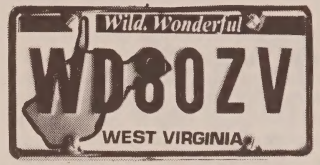

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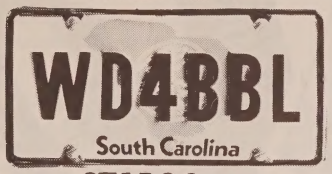

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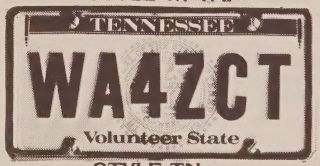

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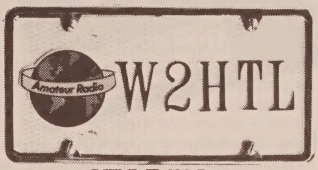

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Fill in form below and mail with your CHECK or MONEY ORDER TO:

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TAG STYLE _____

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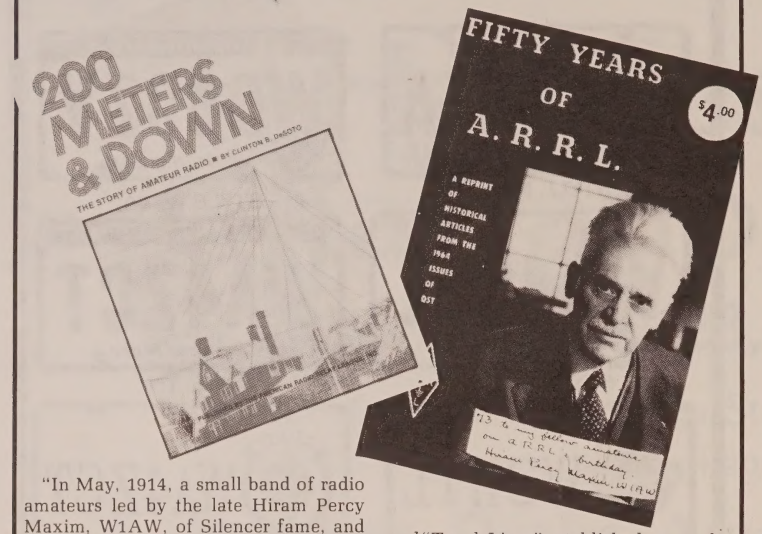
ADDRESS _____

CITY & STATE _____

ZIP _____

PLEASE PRINT CLEARLY RJ 8

The American Radio Relay League Some Books For Interesting Reading


200 METERS & DOWN
THE STORY OF AMATEUR RADIO ■ BY CLINTON B. DESOTO
FIFTY YEARS OF A. R. R. L.
$4.00
A REPRINT OF HISTORICAL ARTICLES FROM THE 1964 ISSUES OF QST

"In May, 1914, a small band of radio amateurs led by the late Hiram Percy Maxim, W1AW, of Silencer fame, and Clarence Tuska, started a national organization and named it the American Radio Relay League....." wrote John Huntoon, W1LVQ, former General Manager in his forward to the ARRL book, "Fifty Years of ARRL."

The book is facinating in that it not only tells about the early days of ARRL, but it tells of the early days of radio, Amateur radio, the War, manufacturers and "Trunk Lines" established across the United States in which Amateurs found direction in making contact in the early days of radio where only a couple of hundred were scattered across the nation.

Amateurs interested in reading this interesting book may order it through ARRL or check with their local dealer. Another very interesting book is "200 Meters & Down", the story of Amateur Radio by Clinton B. DeSoto which is also published by the ARRL. This book was first published in 1936.

An Editor's Viewpoint

(Continued from Page 11)

40% I direct this---Turn to page 8 in this book, fill out the ARRL membership form and send it to the address shown.

Before you balk at the $25 price tag think about a few things:

● That's slightly more than $2.08 per month ● QST is worth that much. ● That additional 50 kHz we just got on 20-meters ● Those new WARC bands we won in 1979 ● That excellent movie and program you saw at the meeting recently ● That fella at the hamfest passing out all that good literature about nets, bandplans, operating procedures, clubs--all free! ● The ease of handling traffic through the NTS ● The well coordinated Emergency Services and Weather Spotters nets ● Those free books, prizes at hamfests, meetings, etc. ● That speaker who drove several hundred miles to conduct a seminar at your club or hamfest meeting ● That ARRL affiliated Hamfest which didn't conflict with your other favorite hamfest ● Your home repeater clean with no interference coordinated through a national bandplan. ● That nifty homebrew project you built last year from QST.

Any or all above were caused or greatly influenced by the ARRL. How would your operating on the ham bands or your traffic handling or your hamfest be if none of the above ever existed? Now, isn't all this and hundreds of other things which affect our Amateur operation worth a mere $2.08 per month. I certainly think so. Join me, let's go to page 8 and fill out that form now before we forget!!

As Vic Clark, W4KFC said, "We have met the ARRL and THEY are US." I think we should support "US"!!!

Lots of Hamfests

The 1983 Repeater Journal listed some 50 hamfests, computer shows and conventions for the upcoming season.

FCC Considering 'No Code' Comments

According to W5YI reports, in a conversation Fred Maia had with Raymond Kowalski, Chief of the PRB Special Services Section, the FCC is considering comments they have received on the "No Code" proposal.

At this point, it is unknown just what the proposal will be, but comments on the codeless license are running both pro and con. He said if you take pure numbers of persons, those opposed to the 'no code' outnumber those who are in favor of the 'no code'. However, the decision-making process isn't simply a popularity contest. It is one that weighs all alternatives...the merits of each position of the commenters and reaches a reasoned result based on an analysis of the contests of the comments.

"At this point we have what I would call very wide discussions on both sides of the issue. The outcome is still undetermined," Kowalski is quoted as saying.

He said the FCC is presently shooting to have and expect to have this matter before the Commissioners for their consideration sometimes in the first quarter of fiscal '84, which starts October 1st and ends December 31st, 1983. (TNX, Fred W5YI)

Coming In November Repeater Journal

ROCK HILL – The York County ARS of Rock Hill, S.C. will hold their 32nd Annual Hamfest next month. The club started in 1948. Phillip Loss, WA4QQG has story and pictures for interesting reading.

COMPUTERS – Not Again!!! Yes, again and again. Mike Williams, KC4AO begins a section series on small home computers, his experiences and misadventures in the forthcoming November issue. Knowing Mike as we do, we know there is certainly going to be some humor thrown into some very informative and interesting reading.

HAMFEST CALENDAR – To give clubs a head start-those looking for an open date, the November Repeater Journal Calendar will feature all confirmed and other hamfest dates for area hamfests. Unconfirmed dates will be based on their 1983 show dates. Space permitting, the entire 1984 season will be printed. Clubs with confirmed dates of their 1984 show should send them to the editor prior to October 1.

ELECTION TIME – Officers of CVRA-SERA are up for election or re-election. We'll have the nominees of the nominating committee. We'll also include a form for you to nominate an officer if you choose "from the floor".

REPEATER INDEX – Lets all make an effort to see that your repeaters are listed correctly. If there are changes, additions or deletions, be sure to let your Director know. Deadline is October 1.

Sound?? Arguments Against The "No-Code"

—From Leara, Cleveland,Ohio

If you've been watching and reading ham radio publications lately - and also talking and listening on the bands - you know the FCC proposal of a "no-code" class of license is the hottest topic yet.

It looks as though no-code is inevitable, though the Commission says it desires well-thought out comments to aid it in coming to a conclusion. Here are some of the well-thought out comments I've read or heard ----- or are they well thought out? You decide....

"Well, by golly, I had to learn the code to get my ticket, so everybody should have to!"

"We don't need no 'high-tech' types in ham radio -- let them use CB with their computers 'n such stuff."

"Sure, the Japanese have a no-code license and I guess it's working - but we're different than the Japanese."

"We need to preserve our corps of well trained radio operators -- we don't need no young kids who are technically minded."

"Make 'em take a tough technical test and then put 'em up on microwave freqs where we don't have to put up with 'em."

"Ham radio is for people interested in the technical side of radio and those interested in providing emergency communications - code proficiency is essential."

And, in conclusion, think about the published position of the Bemidji, MN ARC as noted in "Worldradio" - May 1983:

"Be it resolved that if the FCC allows the issuance of a no-code license, within the operating frequencies of the present established bands, this clud will not:

1) recognize the holders of such a license;
2) encourage applications for such a license;
3) aid, or help train, for such a license; and
4) examine for such a license."

And who was your "Elmer," OM?

Associate Membership

CVRA-SERA Associate membership has doubled in the past 8 years and will peak at the 4,000 member mark by now.

Early records indicate the Association had 293 members in September of 1974. In 1975 - 504 members, 1976 - 916 members, 1977 - 1,410 members and in 1978 - 1,900 members. The 2,000 mark was achieved 1979 as the year ended with 2,500 members. In 1980, just one year later, the 3,000 mark was made in membership. The year 1981 saw a modest growth to 3,200 and finally by mid 1982, 3,500 members.

Your Director Can Use Your Assistance

Most CVRA-SERA District Directors are sadly lacking help in their areas. Repeater users and owners are needed to keep them informed of repeater changes, callsign changes and general news happening around the District.

You can help in one of two ways. If you are a real dedicated ham, and want to become a part of our organization in the form of a committee member or Assistant Director, contact your local State Director. He needs Assistants who will TAKE time to watch, listen and ask about conditions, repeater changes, coordinations and many other things across his District.

If being an Assistant is not your cup of tea, you can still help. Listen to repeaters in your area, check their callsigns against those listed in the Repeater Journal. Send corrections to your Director. If you hear of club news, important news, or are good at writing feature material try your hand by sending news to your Director. Your State is only publicized by people from your State.

606 Repeaters in Five States

There are a total of 606 repeaters listed in the CVRA-SERA five State index in the November 1982 Journal.

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FM-2030
25 Watt 2-Meter FM

NOW $299
Suggested Retail

the C-MOS microcomputer controlled digital transceiver wins the cost/benefit contest with its 6-in-1 features.

1. DIAL — Selects the desired frequency at the twist of the knob, when the concentric ring switch is in the DIAL position. Easy and fast 2-speed dialing with audible beep at the end of the band.

2. M-CH — Selects and displays the memory channel numbers as the knob is turned. An Audible Beep is made at channel 1 and 10 for safer operation mobile.

3. M-FR — Selects the memory channels but displays the frequencies contained in each channel instead of the channel number. Same safety beep at channel 1 and 10.

4. CALL — A flick of the concentric switch ring selects the eleventh memory channel which is used for your favorite frequency for calling or listening.

5. WRITE — By pushing the dial in, the frequency selected is programmed into the appropriate memory location.

6. RIT — 1kHz steps for RIT. Clears up the distortion caused by the transmitting station's off frequency condition.

Any way you measure it ...

MORE! • Remote Stepping From Microphone • Remote Memory Selection • Computer Programmable Call Channel • Bank Scan • Memory Scan • Repeater Reverse Button • NiCd Battery Memory Back-up • Pluggable Initialize Module allows wide band operation (143-149.995MHz) for MARS • Touchtone microphone included • CTCSS Encoder included (Tunable) • Small Size (55H x 162W x 182D) • 2 Speed Dialing (100kHz/5kHz) •

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AARL President Eugene C. Woodruff, W8CMP, unveils the Maxim Memorial Plaque during the dedication of the new W1AW on September 2, 1938. (Photo ctsy: ARRL)

ARRL & CVRA-SERA Emblems Available Use on Newsletter & Correspondence

The Repeater Journal Production department has made a supply of ARRL and CVRA-SERA emblems available to the editor to distribute free to any clubs, groups to repeater sponsors who care to have one.

The emblems pictured above are on clean white photoprint paper which is suitable for printing reproduction of good quality. ARRL and/or CVRA-SERA affiliated clubs and repeater groups who wish to have a set of both emblems to use on their publications and correspondence may write for them.

Write to Repeater Journal editor: WAYNE C. WILLIAMS, K4MOB, 600 Lakedale Road, Colfax, N.C. 27235. Please enclose small S.A.S.E. with your request. The emblems are free.

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MODEL K-7000-AC 10 Hz to 550 MHz counter. 50 Ohm & 1 Megohm inputs via BNC type connectors on rear panel. This model is available in optional kit form.

#K-7000-AC	counter assembled 115 VAC/12VDC $150.00
#K-7000-ACK	counter-kit form 120.00
#N-Cad-70S	internal N-Cad battery pack 25.00

MODEL 7010-S 10 Hz to 600 MHz counter. 50 Ohm & 1 megohm inputs via BNC type connectors on rear panel. Precision TCXO or optional ± 0.1 PPM ovenized (OCXO) time base. Both have 10 turn calibration adjustment accessible from rear panel. Excellent UHF sensitivity with new amplifier circuitry. Optional extended frequency range to 1 GHz.

#7010-S	600 MHz counter 115VAC/12VDC ... $199.00
#ER-1000	1 GHZ extended frequency range 95.00
#OCXO-70	Ovenized - 0.1 PPM time base Osc. ... 65.00
#N-Cad-76	Internal N-Cad Battery Pack 25.00

MODEL 8010-S Deluxe 10 Hz to 600 MHz counter. External 10 MHz clock input/output on rear panel, display "HOLD" function, display "TEST" function. Optional 1 GHz extended range. Excellent sensitivity. Optional ultra precision ovenized oscillator with ± 0.05 PPM stability 10-45° C.

#8010-S	600 MHz counter 115VAC/12VDC ... $295.00
#ER-1000	1 GHz extended frequency range 95.00
#OCXO-80	-0.05 PPM oven time base 105.00
#N-CAD-86	internal N-Cad battery pack 60.00

MODEL 8013-S 10 Hz to 1.3 GHz frequency counter. Has all features of model 8010-S plus standard range to 1.3 GHz. Typical sensitivity at 1.3 GHz = 50 mV (-13 DBM).

#8013-S	1.3 GHz counter 115VAC/12VDC $495.00
#OCXO-80	-0.05 PPM oven time base 105.00
#N-Cad-86	Internal N-Cad battery pack 60.00

WILSON, N.C. — Since December the 16-76 repeater placed on the air is serving Wilson, Wilson County and area well. Improvements have been made along as the machine continued in operation. There are 34 members of the local club (Wilson ARA) and is steadily growing. Huland Gardner, WB4THL is trustee of the machine. According to Carl Pennington, Jr., President, the group is proud to be full members of CVRA-SERA in order that the association and the club can offer each other support.

• • •

50th Field Day is first for new General. Eleven year old Erick Cowell, KA8QAU, son of Bill Cowell, WB8YJJ, Fenwick, WV participated in Field Day this year, joining his dad and other hams from the area on a mountaintop near Richwood.

• • •

KNOXVILLE, TN. — Tim Berry is at it again! Rumor has it that he has placed an order with G.E. for a complete new set of slugs for his Master II repeater. Like the castors on his cabinet, the slugs have gone approx. 100,000 miles. Tim's UHF repeater is shaping up. The Master Pro station and Stationmaster antenna have arrived. Soon we can remove the "C" listed after the WB4GBI 449.70-444.70 repeater. (George, K4HXD)

• • •

DANVILLE/WHITE OAK, VA. — Amos Rhames, K4WQS reports the 10-70 repeater has been moved back to its old location on the 100-foot tower on the SE edge of the hill. They had moved the machine to the top of the mountain on an FM broadcast tower, but interference, desence and loss of coverage made them decide the "downhill" location was far better for the machine. Amos has reworked the machine also. (Wayne, K4MOB)

• • •

MORRISTOWN, TN. — The 63-03 WD4RTT machine presently located on Shields Ridge is being moved to Clinch Mt. This will increase coverage in much needed areas. (Sam, WB4HAP)

You should coordinate!

If you plan to place a repeater on the air you should coordinate with CVRA-SERA. Lots of private repeaters, and recent coordinations may not appear in the Repeater Journal. Be safe—coordinate!

District Ramblings

LEXINGTON, S.C. — Al Harney, South Carolina Director of CVRA-SERA reports he has moved. South Carolina amateurs wishing to coordinate repeater frequencies, or correspond with Al, should write him at his new address: 224 Morningwood Drive, Lexington, S.C. 29072.

• • •

WESTFIELD, N.C. — Richard Messick, N4GGK has plans to install a fast scan TV repeater on Sauratown Mt., North of Winston-Salem in the near future. No frequency has been decided as of yet. Further info later. (Ken, WA4BVW)

• • •

MT. MITCHELL, N.C. — A net has been started on the 59-19 sub band repeater on Mt. Mitchell. The net is held at 2100 Eastern Time each Saturday night. Net Control is Phil Haga, KA4CAC of Asheville. It is called the "6600 Net", denoting the height of the repeater, the highest on the East coast. (Ken, WA4BVW)

• • •

KNOXVILLE, TN. — I heard the Knoxville repeater group has decided to invest in an EPROM eraser. You see — they are changing calls again on the 73-33 sub band autopatch machine. The reason, Eddie Woodrick, WA4YIH, the machines present trustee is taking the big new job down South. I believe he will be out-of-range and can't monitor. The machine goes back to WA4TEM, with Robin Rumbolt, trustee. Next month — who knows? (Sam, WB4HAP)

• • •

MT. PISGAH, N.C. — A Good Morning net has been in operation for some time now on the Mt. Pisgah 16-76 repeater by Mac, K4TAM and Eleanor, WD4AWH. The "Bay Window Net" is held each morning at 0900 Eastern Time, Monday thru Friday. (Ken, WA4BVW)

• • •

EDEN/MAYODAN, N.C. — The WA4ACP, 84-24 repeater has been moved to a new location. The new site is 1049-feet MSL and its permanent tower stands at 111-feet. The repeater consists of solid-state VHF Engineering gear and is on the air 24 hours daily. The new site and tower should prove to provide Rockingham County and surrounding areas with good, dependable coverage. Supporters are: N4GWZ, Ray; WB4CTZ, Sonny and WA4ACP, Kerry.

• • •

MT. MITCHELL, N.C. — The Mt. Mitchell 220 mhz. repeater has been upgraded with a Motorola Micor transmitter and receiver. The Stationmaster antenna has been moved from the tower to a metal pole to give better omni-directional coverage. The short pole for the antenna is supported by a 6,600-foot "hill". The repeater operates on 222.94-224.54. (Ken, WA4BVW)

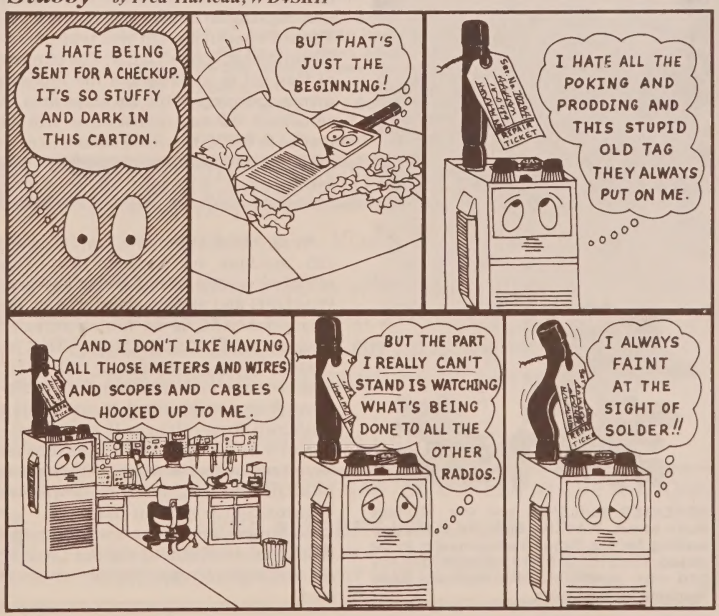
• • •

LAKE TOXAWAY, N.C. — The Brevard 735-135 repeater has been moved to Lake Toxaway. The new machine is now located at the home of Erik, W4EHV. It will be listed as Lake Toxaway in the Repeater Journal index in the future. (Ken, WA4BVW, John WOIKT)

• • •

MT. MITCHELL, N.C. — The 448.65-443.65 Mt. Mitchell 440 machine is now in operation with a directional antenna pointed SW, awaiting an omni-directional Station-master. This repeater joins the 94-54 (220 mhz) and the 59-19 (2-meter) on Mitchell, making these 3 machines the tallest machines on the East Coast. (Ken, WA4BVW)

Stubby *by Fred Hurteau, WD4SKH*


I HATE BEING SENT FOR A CHECKUP. IT'S SO STUFFY AND DARK IN THIS CARTON.
BUT THAT'S JUST THE BEGINNING!
I HATE ALL THE POKING AND PRODDING AND THIS STUPID OLD TAG THEY ALWAYS PUT ON ME.
AND I DON'T LIKE HAVING ALL THOSE METERS AND WIRES AND SCOPES AND CABLES HOOKED UP TO ME.
BUT THE PART I REALLY CAN'T STAND IS WATCHING WHAT'S BEING DONE TO ALL THE OTHER RADIOS.
I ALWAYS FAINT AT THE SIGHT OF SOLDER!!

Lookout Mountain = Super Repeaters

—by Dave Newman, NA4L

Another "tall" mountaintop on the East coast has fallen into hands of Amateur radio. First Mt. Pisgah, then Mt. Mitchell and now Lookout Mt. in Virginia.

Serving six states from over 4,600 feet the Point Lookout Mt. repeater on the coordinated frequency of 53-13 (sub band) can join hams from Hampton, Va. to Knoxville, Tn., and Charleston, S.C. to Parkersburg, W.Va.

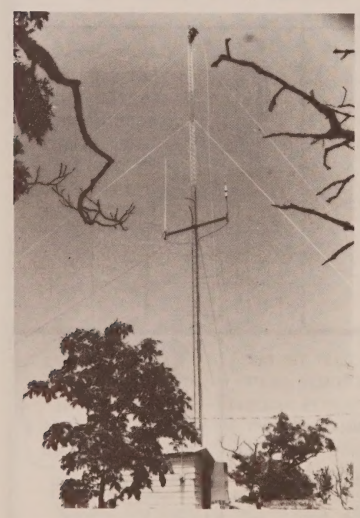
The machine, owned by Jr. Diamond, N4VL and co-sponsored by the Briarpatch ARC is VHF Engineering with six Phelps-Dodge duplexers. The antenna, a Phelps-Dodge Super Stationmaster, is supported at 4,662 feet by a 120 foot Rohn Tower.

The transmitter, running at maximum legal power for HAAT, has coverage up to 300 miles, but in case of power failure, the amplifier automatically drops out and the power to the exciter is provided by two deep cycle batteries.

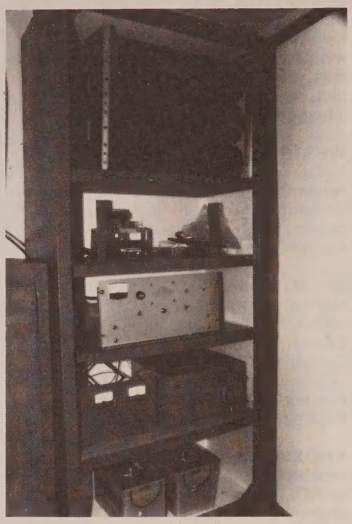
The repeater is housed in a steel vault atop Beautiful Point Lookout, Mt., 12 miles West of Galax, Va.

We are just waiting for a good band opening and lots of DX. Incidentally, during the band opening on field day, KB5XG in Oklahoma checked in on the repeater.

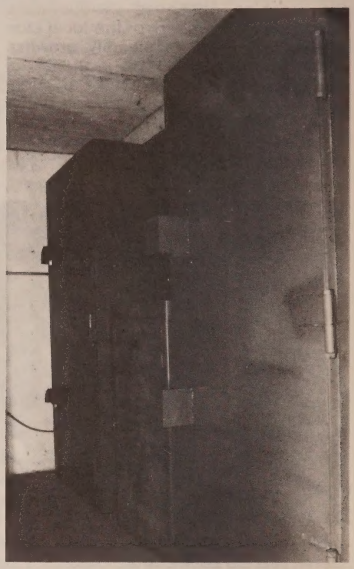
There has been minor interference with a 53-13 repeater in Johnson City, Tn., but both owners have been working with the Tennessee and Virginia CVRA-SERA Directors in hopes of rectifying the problem in the very near future.



REPEATER BUILDING and the 120-foot Rohn tower. WA4ZIV, Ron sits at the top waiting for the Super Stationmaster to be raised. The 2-meter 53-13 machine joins the 220 mhz. machine and a Business band machine on the tower.



LOOKOUT MT. repeater equipment. The 53-13 sub band repeater rests on the 4,660 foot mountain in SW Virginia. Pictured from the top, are six Phelps-Dodge Duplexers, amp and accessory shelf, the repeater, power supply, and at bottom, deep cycle batteries for Emergency power.



STEEL VAULTS protect the Lookout Mt. repeaters. The three vaults house the 2-meter, 220 mHz repeater and a Business Band repeater in a small building under the antenna tower.

●●●●●●ONE SHOT NET●●●●●●

A "One Shot Net" will be activated on the 53-13 Galax machine on Sunday evening August 21 at 2100 Eastern Time. The net control station will take check-ins in order of last call letter. The purpose of this net is to enlighten the repeater owner and users of the coverage area. A certificate of accomplishment will be mailed to the furthermost station in each State which successfully checks in this special net.

ADDED ATTRACTION – 220

As an added attraction, there is also a 220 machine on Lookout Mt. This machine, owned by Buford Underwood, WA4DFH and also co-sponsored by the Briarpatch ARC is on the coordinated frequency of 222.74-224.34. The repeater is a combination of VHF Engineering and Hamtronics equipment. It is running about 20 watts into a Cushcraft Ringo Ranger II at an elevation of 4,620 feet. The checkins thus far have been up to 100 miles, with Wayne, K4MOB checking in from downtown Winston-Salem with his handheld.

Both repeater owners and Briarpatch ARC urge everyone to use the Lookout Mt. repeaters, when in the coverage area.

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ST-MC Cig. Ltr. Mobile Battery Charger	9.95	ST-RD Replacement 2-meter rubber duck	8.95
SW-WC Replacement Wall Charger	9.95	MS-50S Remote Speaker w/mini. & Sub mini plgs	13.95
ST-EC Charge extender (Chg. batt outside radio)	4.95	SS-32A Synth. Sub-Audible Tone Encoder	29.95
ST-500B 500 mah Battery pack	26.50	SS-32B Synth Tone Burst, Tone Encoder	29.95
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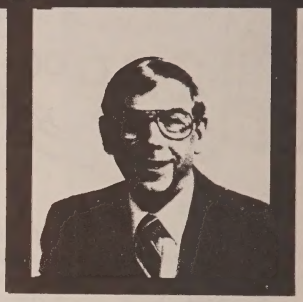

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Hamfest Roundup

SAVANNAH, GA. OCT. 22-23

SAVANNAH, GA. — The Amateur Radio Club of Savannah will hold their third annual hamfest on October 22-23 at the Army National Guard Armory on Eisenhower Drive. Featured will be commercial exhibits, flea market, food and plenty of free parking. For information write: ARCS Hamfest, P.O. Box 13342, Savannah, Ga. 31416.

CHATTANOOGA, TN. OCT. 22-23

CHATTANOOGA, TN. — The Chattanooga Hamfest and Tennessee State ARRL Convention will be held October 22-23 at the Chattanooga State Technical Community College on Amnicola Highway. Activities will include forums, contests, and non-ham activities, as well as commercial exhibits and flea market. Inside Dealer, and inside or outside flea market spaces. Further information contact: Hamfest Chattanooga, P.O. Box 3377, Chattanooga, Tn. 37404. (See Full Page ad this issue)

HUNTSVILLE, ALA. AUG. 20-21

HUNTSVILLE, AL. — The third annual Huntsville hamfest will be held at the Von Braun Civic Center in Huntsville, Al. on August 20 and 21st. Also on the program will be the Alabama State ARRL Convention. Inside commercial booth spaces, and plenty of flea market spaces available. For further information write: Huntsville Hamfest, Inc. 2804 S. Memorial Parkway, Huntsville, Ala. 35801.

ROCK HILL, S.C. OCT. 2

ROCK HILL, S.C. — The 32nd annual Rock Hill Hamfest will be held at Joslin Park on Lake Wylie, Sunday October 2 from 0700 until. Tailgating and dealers. Bingo for ladies and children. Noon meal, and concession stands. No overnight camping. Further information may be seen with our full page ad this issue.

GREENSBORO, N.C. NOV. 26-27

GREENSBORO, N.C. — The 3rd annual GARC Greater Greensboro Hamfest will be held Nov. 26 and 27 at the National Guard Armory on Franklin Blvd., Greensboro. Dealers, Manufacturers and flea market. Further information write: GARC, P.O. Box 7007, Greensboro, N.C. 27407. (See our two-page ad this issue)

SHELBY, N.C. SEPT. 3-4

SHELBY, N.C. — The "Granddaddy of Them All" happens on September 3-4 at the Cleveland County Fairgrounds, East of Shelby. Over 1,000 parking spaces and flea market, huge dealer, manufacturer exhibit building, over night camping, food service on fairgrounds. 15 acres of flea market, bingo, arts and crafts. For further information, contact Shelby Hamfest, P.O. Box 2206, Shelby, N.C. 28150. (See our 2-page ad this issue)

BLUEFIELD, WV. AUG. 28

BLUEFIELD, WV. — The Bluefield Hamfest will be held at the Brush Fork National Guard Armory on August 28. Inside flea market, dealers, venders. Special programs for ladies and children. Computers and satellite TV. For further information write: Don Williams, Bluefield hamfest 412 Ridgeway Drive, Bluefield, Va. 24605.

TIDEWATER, VA. OCT. 8-9

TIDEWATER, VA. — The 8th annual Amateur Radio/Computer Convention will be held October 8-9 at the Virginia Beach Arts and Conference Center. Featured will be major commercial exhibitors, indoor flea market, food service, ladies and childrens programs. For further information, write: Tidewater Radio Conventions, Inc., 1234 Little Bay Ave., Norfolk, Va. 23503. Please include S.A.S.E. (See our page ad this issue)

TRI-CITIES, TN. SEPT. 10

TRI-CITIES, TN. — The 34rd annual Tri-Cities Hamfest will be held at the Appalachian Fairgrounds near Gray, Tennessee (between Johnson City and Kingsport) on September 10. A super flea market and dealer show is planned. Plenty of free parking and R.V. hookups on the spacious grassy fairgrounds. The show is joinly sponsored by the Bristol, ARC, Johnson City RA and the Kingsport ARC. For further information, write: Jack Maddox, 1403 Woodside Drive, Johnson City, Tn. 37601. (see our full page ad this issue.)

(Editor's note: We thank the above clubs for providing us with information about their hamfests.)

Bell System Reorganized

The Wall Street Communications Association Board of Directors has issued the following clarification of the Bell divestiture:

Many Bell employees have questions about Divestiture. To end any confusion, we present the following concise explanation:

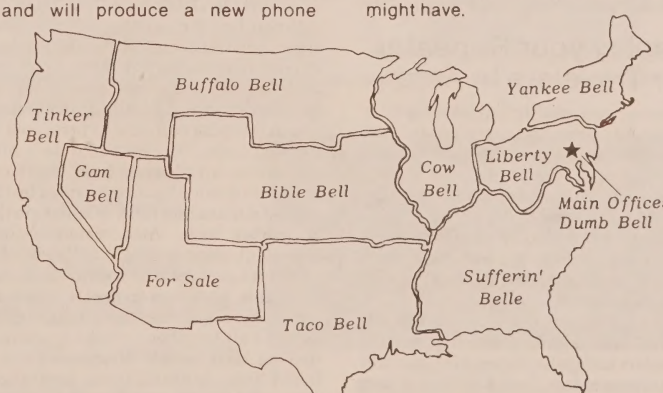
First, a fully separate subsidiary (FSS) will be established for the unregulated competitive areas of communications. Both the regulated and unregulated companies will be owned by AT&T.

Next Data will be bundled with the Network. Both, in turn, will be divided into bundled and unbundled segments. The bundled segment will be called Datawork and the unbundled segment will simply be called NET. The unbundled NET Department will be merged with the unregulated, but bundled, Marketing Demand Segment which will oversee the Phone Centers. The Phone Centers will be expanded and merged with a fast food chain. Residence Services will be split and merged with Building Services.

The Annoyance Call Bureau will now handle collections. Special Services will be renamed Perplexing Services and will be merged with BPOC. Installation and Repair will be abolished. Their functions will be handled by Sears on a mail-order basis. All Dimension PBXs will be sold by Heath in kit versions. Bell Labs will merge with Radio Shack and will produce a new phone system called the Trash-85. Western Electric will move to Singapore and be renamed Eastern Electric. Eastern Electric will then merge with Western Union. For clarity's sake, the merged company will be called Eastern Western Electric Telephone, Telegraph and Data Corporation.

On every Tuesday at 4 P.M. when the MUZAK stops, all employees will change seats.

We hope this simple explanation will clear up any questions you might have.



Thanks to "Disconnect" Magazine

Fall Elections Scheduled For New Slate of Officers

Elections are scheduled this fall for new officers for the CVRA-Southeastern Repeater Association. Offices open for new candidates are that of: President, Vice-President, Secretary and Treasurer. The President, Don Morris AB4J will name a nominating committee at the 2nd annual CVRA-SERA meeting at Shelby on September 3rd. This committee will be responsible for coming up with a slate of candidates for the offices, generally one for each office.

Meanwhile, the November issue of the "Repeater Journal" will print an application for "Nominations from the Floor" enabling everyone who is associated with CVRA-SERA to have an opportunity to nominate someone of their choosing as a CVRA-SERA officer.

If you have someone in mind who would make a good officer for the organization, with their approval, send in their name to the Journal editor. He will then pass it on to the nominating committee at Shelby for their consideration. If you wish an official nomination, use the form in the November Repeater Journal.

For information purposes, here are some of the responsibilities of the CVRA-SERA officers:

PRESIDENT

Office is presently held by Don Morris, AB4J of Charlotte, N.C. who is ending a two-year term. The President's duties include presiding over the annual meetings of the organization, making decisions when necessary concerning the organization and the outside public, calling special meetings when necessary, assigning various committees, including the Publications, Associate Membership, FCC Liason, Full Membership and others. The president represents CVRA-SERA when necessary to outside organizations and is responsible for seeing that we are well represented at all the meetings when asked, hamfests, etc.

VICE-PRESIDENT

The Vice-President's office is presently held by A. Carter Cogle, K4ARO of Petersburg, Va. Carter is finishing a 2-year term as VP. He also has held offices of Secretary, and Director for the organization over the years. The Vice-President replaces the President in presiding over meetings when the President is unable to attend. One of the Vice-Presidents primary jobs is the coordination and communications among the various Directors. He works with them in contacting repeater owners and offering Full Membership to any or all repeaters within the territory covered by our organization. The Vice-President replaces the President if he is unable to continue the job before his term expires.

SECRETARY

The Secretary of CVRA-SERA is Maxine Barrett, N4ECA of Lookout Mt., Tn. She is completing her full 2 year term. The Secretary of CVRA-SERA records minutes at the meetings, handles correspondence as necessary for the President, sends out notices of meetings, mails and handles ballots for elections and generally handles all other correspondence as necessary from the organization.

TREASURER

The office of Treasurer is held by Raymond K. Adams, N4BAQ, of Knoxville, Tn. Ray is finishing his full 2-year term after being reelected two years ago. He had previously filled an unexpired term.

The office of Treasurer is an important one. The Treasurer must keep records and books for the organization concerning money spent and received. He must also watch tax records and present financial reports to the Board monthly.

SEND IN YOUR NOMINATION

If you feel the existing officers have done a good job, support them by sending in your nomination for them, or if you wish to nominate a new person for the job, send it to the Editor. This nomination at this time will only be presented to the nominating committee for their consideration. An official "from the floor" nomination must be accompanied by the special nomination form to appear in the November issue. Also remember one important thing – ONLY FULL MEMBERS can nominate or vote in elections. Associate Members (repeater users) of course can urge their repeater owner IF he is a Full Member to make a nomination on their behalf. Remember too – ONLY FULL MEMBERS can hold office. (This is one of the advantages of being a Full Member of CVRA-SERA) (Editor)

Display your Repeater For Travelers In Area

Repeater owners, display your repeater and its frequency for travelers in your area. You can list your repeater, its location, call sign, frequency and a brief message in our Business Card section for only $14.00 a year.

If you have a club that caters to travelers or any service, why not show it in the Business Card section of the Repeater Journal.

If we get enough public services listed, we will start a special page listing only repeaters and clubs. So send in your card or message today. Send $14.00 and your message (we'll set the type for you if you desire) to: Ken Holiday, WA4DYY,

Full Repeater Members Set New Records In 1983

-by Gerry Butts, Full Mbr. Chrmn.

We have set a new record in Full Memberships in CVRA-SERA for 1983 with a total of 247 Full memberships representing a total of 332 repeaters. This gives the organization a clear majority of membership over the 5-state area covered.

We had a goal of 300 Full Memberships for 1983, but it is quite unlikely we will meet that goal. We have a very large percentage of repeate owners who forgot, or just didn't bother to renew for 1983. Our number of new members (those who joined for the first time) rose drastically this year. If renewals had been as good as in the past, we could have made that 300 Full Membership mark easily. Here is a breakdown of memberships by State:

STATE	MBRSHIPS	# RPTRS	TOTAL RPTRS
NC	85	114	185
TN	44	64	184
VA	47	67	135
SC	33	39	65
WVA	22	30	60
GA*	14	17	--
EKY*	1	1	--
ALA*	1	1	--
TOTAL	246	332	605

**Ga., Ala. & E. Kentucky are not CVRA-SERA Districts, but do have repeaters who have joined CVRA-SERA to help support our organization.*

We will be receiving a few late joiners between now and the end of the year. Membership fee for the remainder of the 1983 calendar year is $4.00. Those who sign up prior to October 15, will be listed in the November Journal.

In November or early December we will send out renewal notices to all Full Members on record from the calendar year of 1983. Additional full membership applications will be available through your District Director, or the Full Membership chairman. All full memberships (repeater owners or operators) expire Dec. 31, 1983.

Check Expiration Date

The mailing label on the back of your Repeater Journal contains your expiration date. This is a handy reference to keep you informed as to when it's time for you to renew.

Don't let your CVRA-SERA membership expire; return your renewal notice as soon as you receive it, or use the application in this issue to renew if your membership is nearing expiration.

The application can also be used for change of address, callsign changes as well as renewals. The Repeater Journal cannot be forwarded to your new address by the post office, and we do not get your forwarding address.

Ham Radio Assists Rescue

—by Gary N. Sutherland, KM4X

Recently Terry Surface, KB4EKB/nf, experienced the value of having a two meter portable radio available at all times.

Terry had been a Technician class licensee only three weeks since passing the test in Norfolk, Va., when he was at the right place at the right time to assist the victims of an accident by providing emergency communications. He works as the director of maintenance for a flying service based at Mercer County Airport in Bluefield, W. Va., and was at his work location in one of the hangers that Friday morning. At about 11:30 A.M., he heard the crash of an aircraft that he knew was coming in for a landing. He and two other men who were nearby jumped into a truck and drove to the end of the runway from which the sound of the crash came.

Terry had thoughtfully grabbed his two meter handie-talkie when he left the hanger. The trio began searching through the wooded area in the dense fog for the downed aircraft. Terry was at the scene of the crash within minutes which was located about three-fourths of a mile from the end of the runway. Both the pilot and his passenger were conscious but badly injured. Terry quickly called on his radio over the Bluefield 145.49 repeater for someone to make a call for emergency personnel to respond. K8WEY responded and placed the call.

By this time, the other two men arrived with the truck at the scene. They loaded the victims into the truck and drove to the airport terminal building where the Bluefield, W. Va. Rescue Squad arrived within a couple of minutes. The rescue personnel administered emergency treatment and transported the victims to the hospital where they recovered and were released within a week.

Terry's quick action and the ability of contacting the emergency crews within minutes of the crash possibly contributed to saving the two lives and speaks highly of his being a valuable assett to his community and the ranks of Amateur Radio.

We, as amateur radio operators, should all be as aware of our great reaches with our communications networks that we have built and always be prepared to assist if and when the time arises.

Terry and his wife Judy, KB4EML/nf, are both newly licensed hams. They reside in Sugar Grove, Va., and as EC of Smyth County, I am proud to have them as a part of the local ARES group.

RTTY on Two?

—by Ted Wolfe, WD4KHL

I'm writing this separate from my regular WEST VIRGINIA NOTES column for the **Journal** because this is really a call for some input from you.

My 2-meter and repeater operations are confined to southern West Virginia so I may not be aware of how things are developing elsewhere. I'd like to keep up with developments in the Southeast and any conclusions I can draw from your input will be shared in a future column or article.

Basically what I want to know is the extent of amateur 2-meter RTTY activity in your area. How is it handled — simplex or via repeater? If by repeater, is it over one dedicated exclusively to RTTY or via a machine open for both phone and RTTY?

Where such usage has been proposed over a repeater and been rejected by the club or sponsor, what was the principal objection?

I'm really curious because in considering the large number of hams who have purchased computers and CW/RTTY software I thought there would be much more RTTY on 2-meters. Sure, we all know of two or three hams so equipped who may live close enough to each other or one another to run some simplex QSOs. But what about getting a gang of a dozen or so hams from widely separated points together on a regular basis for net operation? That usually translates out to one word: repeaters.

Some RTTY enthusiasts have banded together in some localities to put repeaters dedicated to RTTY use on the air. For that to succeed, however, you've got to have some density in the ham population in a particular area.

In my own home club recently one of our members proposed opening our wide area machine for RTTY experimentation for a specified number of hours each week. It was not put to a formal vote but the feeling of those present was to reject the proposal.

Some voiced the thought that once you allow RTTY on your machine it will take over. Others don't want to have their scanning rigs lock up on a frequency where all you hear is a period of weird noises.

I and a few others who agreed with the proposal felt that by making our wide area machine available for experimentation several hours a week — hours to be specified so as not to interfere with normal phone operation in prime time — we would encourage formation of a net to link smaller, local groups of RTTY enthusiasts who are widely scattered.

We hams are supposed to be pioneers, experimenters, innovators. How is that accomplished without effort on inconvenience?

Are there many repeaters in your area which will permit occasional or scheduled RTTY hours? Give me input, even if you're adamantly opposed to RTTY on your local repeater. But please, give me your reasoned objections.

How, in some future emergency could hams provide communications with hard copy message readout/printout for official purposes via 2-meters if they haven't ever had the opportunity to experiment via repeater and get the bugs out of the system?

From this you can surmise I favor experimentation. But if I get enough input from you any followup will be as balanced as the input. My mailing address for your input, comments, suggestions, etc., is PO Box 133, Cabin Creek, WV 25035.

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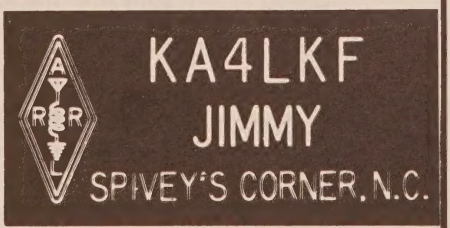

Your Choice of Colors!

● RED/WHITE ● BLACK/WHITE

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CARTHAGE NC
FDEN/MAYODAN NC

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	MARTINSBURG	WV
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	BENSON	NC
	WAYNESVILLE	NC
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3.06 /4.66	CANTON	GA
3.08 /4.68	CHARLOTTE	NC
3.10 /4.70	WSTFLD/SAUTN MT	NC
3.14 /4.74	KINGSTON/LICK KB	WV
3.16 /4.76	SALISBURY	NC
	DAN/WHT OAK	VA
3.18 /4.78	CHATTANOOGA	TN
3.20 /4.80	MORGANTON	NC
3.22 /4.82	ATLANTA	GA
	KNOXVILLE	TN
	ALEXANDRIA	VA
3.28 /4.88	WSTFLD/SAUTN MT	NC
3.30 /4.90	CHATTANOOGA	TN
3.34 /4.94	KENNESAW	GA
	GREENEVILLE	TN
	ROANOKE/POOR MTN	VA
3.36 /4.96	CHERRYVILLE	NC

440 MHZ

9.25 /6.27	ALEXANDRIA	VA
9.25 /7.25	ALBANY	GA
	CHATTANOOGA	TN
7.05 /2.05	MEDINA	TN
7.25 /2.25	COVINGTON	VA
7.75 /2.75	ROANOKE	VA
7.80 /2.80	FRANKLIN	TN
	MEMPHIS	TN
7.90 /2.90	HIGH POINT	NC
8.00 /3.00	WIN-SAL/SAUTN MT	NC
	MEMPHIS	TN
8.40 /3.40	MEMPHIS	TN
8.50 /3.50	TYSONS CORNER	VA
8.65 /3.65	MT MITCHELL	NC
	HAMPTON	VA
8.70 /3.70	LOCUST	NC
8.75 /3.75	ALAMO	TN
	FINCASTLE	VA
9.00 /4.00	ARLINGTON	VA
9.05 /4.05	WAYNSBR/ARTON MT	VA
9.10 /4.10	HILLSBOROUGH	NC
	COLUMBIA	SC
	CHATTANOOGA	TN
9.15 /4.15	LEXNGTN/COLE MT	VA
9.20 /4.20	COLUMBUS	GA
9.25 /4.25	CHARLOTTESVILLE	VA
9.30 /4.30	FISHERVILLE	TN
	KNOXVILLE	TN
	WAYNESBORO	VA
9.35 /4.35	LYNCHBURG	VA
9.40 /4.40	FAYETTEVILLE	NC
	OAK RIDGE	TN
9.35 /4.45	GALLATIN	TN
9.45 /4.45	GALLATIN	TN
	SALEM CHURCH	VA
9.50 /4.50	KENNESAW	GA
	KNOXVILLE	TN
	MEMPHIS	TN
	LYNCHBURG	VA
	PETERSBURG	VA
9.10 /4.509	CHARLESTON	SC
9.60 /4.60	CHARLOTTE	NC
	KNOXVILLE	TN
	ALEXANDRIA	VA
9.65 /4.65	GREENEVILLE	TN
9.675/4.675	NASHVILLE	TN
	NASHVILLE	TN
9.70 /4.70	KNOXVILLE	TN
	MORGANTOWN	WV
9.775/4.775	NASHVILLE	TN
9.80 /4.80	CANTON/CHBRS MT	NC
	MEMPHIS	TN
	KINGSTON/LICK KB	WV
	MORGANTOWN	WV
9.85 /4.85	CHARLOTTE	NC
	PETERSBURG	VA
9.875/4.875	NASHVILLE	TN
9.90 /4.90	ASHVL/MT PISGAH	NC
	GREENSBORO	NC
9.95 /4.95	VIRGINIA BEACH	VA
9.975/4.975	NASHVILLE	TN
2.25 /7.25	ROCK HILL	SC
2.50 /7.50	ROANOKE/POOR MT	VA
4.225/9.225	MANASSAS	VA
4.25 /9.25	STONE MTN	GA
4.40 /9.40	MEMPHIS	TN
4.60 /9.60	BUCKHEAD	GA
	CHARLOTTE	NC
4.75 /9.75	FAIRFAX	VA
4.85 /9.85	ANNANDALE	VA
4.90 /9.90	WOODBRIDGE	VA

6-METERS

3.05 /2.05	MARIETTA	GA
2.58 /2.48	FAIRFAX	VA
2.525/2.525	HENDERSONVILLE	NC
2.76 /2.525	KNOXVILLE	TN
3.525/2.525	NORFOLK	VA
2.01 /3.01	HENDERSONVILLE	NC
	NEWPORT	TN
	CHATTANOOGA	TN
	MEMPHIS	TN
	ABINGTON	VA
	LEXNGTN/COLE MT	VA
	NORTN/HIGH KB	VA
2.03 /3.03	CHARLOTTE	NC
	ROANOKE RAPIDS	NC
2.07 /3.07	SOUTH BOSTON	VA
2.13 /3.13	ALEXANDRIA	VA
	DANVILLE(OCC)	VA
2.15 /3.15	HIGH POINT	NC
	KNOXVILLE	TN
	LYNCHBURG	VA
2.25 /3.25	KNOXVILLE	TN
2.35 /3.35	CARY	NC
2.41 /3.41	PICKENS	SC
2.47 /3.47	HICKORY	NC
2.07 /3.67	STATESVILLE	NC
2.525/T.85	PICKENS/CSRS HD	SC

10 METERS

9.60 /9.60	CHARLOTTESVILLE	VA
9.52 /9.62	ATLANTA*	GA
	KNOXVILLE	TN
	MEMPHIS	TN

NORTH CAROLINA REPEATERS

2-METERS

AHOSKIE	WB4YNF	144.53	145.13	A
AHOSKIE	WA4ZGQ	146.31	146.91	N PA
ALBEMARLE	K4ODG	146.385	146.985	
ANDSN MT/NEWTON	WD4LCF	144.85	145.45	N
ASHEBORO	WD4AIB	147.855	147.255	PAL
ASHEVILLE	WA4QCO	146.235	146.835	A
ASHVL/MT PISGAH	WA4BVW	146.16	146.76	
ASHVL/SPIVEY MT	W4MDE	146.31	146.91	
BENSON	WR4ARL	147.87	147.27	N PA
BODIE ISLAND	KE4PB	146.235	146.835	N C
BOONE	WA4KDB	147.96	147.36	
BURGAW	K4LZY	146.34	146.94	
BURLINGTON	WR4AKY	146.07	146.67	N
BURLINGTON	W4VGZ	146.475	147.075	N EA
BURLINGTON	WA4HBQ	147.675	147.075	N EA
BURNSVILLE	WA4LLR	147.975	147.375	A
CANTON/CHBRS MT	WB4QKG	144.75	145.35	
CARTHAGE	W4NIW	147.84	147.24	EA
CHARLOTTE	KE4ZC	144.57	145.17	
CHARLOTTE	W4BFB	144.63	145.23	
CHARLOTTE	WD4JWO	144.69	145.29	N
CHARLOTTE	WB4HTR	144.75	145.35	N
CHARLOTTE	KA4HNP	145.00	145.60	N
CHARLOTTE	W4BFB	146.175	146.775	R
CHARLOTTE	WR4AEU	146.34	146.94	A
CHARLOTTE	WR4ALO	146.46	147.06	N A
CHARLOTTE	WB4KPF	147.615	147.015	PA
CHKYVL/BKRS MT	WB4UDS	144.55	145.15	
CONCORD/KANNAP.	K4CEB	146.055	146.655	A
DILLSBORO	WB4NSS	146.385	146.985	
DUNN	WB4FXM	146.10	146.70	PA
DURHAM	WA4WTX	146.22	146.82	N
DURHAM	WA4BFT	146.34	146.94	N A
EDEN/MAYODAN	WA4ACP	147.84	147.24	N
EDEN/STONEVILLE	WA4QRG	147.99	147.39	
ELIZABETH CITY	WA4VTX	146.46	147.06	N A
ELIZABETHTOWN	N4DHW	146.175	146.775	N
ERWIN	WR4ALY	146.43	147.03	N
FAYETTEVILLE	N4EWG	146.205	146.805	
FAYETTEVILLE	WB4YZF	146.31	146.91	
FAYVLLE/FT BRAGG	W4LPL	146.93	147.33	
FOREST CITY	W4TMT	146.07	146.67	N A
FOREST CITY	WA4BKU	147.84	147.24	N
FRANKLIN	WB4YAO	147.84	147.24	N
FRNKLN/COWEE BLD	N4AC	144.89	145.49	
GAST/SPCR MT	W4REW	147.72	147.12	A
GASTONIA	K4ZFD	146.205	146.805	N L
GOLDSBORO	K4CYP	146.25	146.85	A
GREENSBORO	N4AZM	144.65	145.25	A
GREENSBORO	K4SNI	146.01	146.61	A
GREENSBORO	WA4MSS	146.16	146.76	
GREENSBORO	WR4AUA	146.265	146.865	N
GREENSBORO	WD4IPZ	147.63	147.03	PA
GREENSBORO	WR4ANL	147.81	147.21	N
GREENVILLE	WA4DAN	144.75	145.35	
GREENVILLE	W4AMC	147.96	147.36	
GREENVL/ESTN NC	W4GDF	147.69	147.09	
GRIFTON	W4NBR	146.085	146.685	
HENDERSONVILLE	WB4YAO	146.04	146.64	N L
HENDSVL/PINCK MT	WA4KNI	144.67	145.27	
HICKORY/BRT. MT	WR4ACM	146.25	146.85	N
HIGH POINT	N4XO	144.51	145.11	N
HIGH POINT	K4AZA	146.40	147.00	LPA
HIGH POINT	K4AZA	147.60	147.00	LPA
HIGH POINT	KA4DHP	147.765	147.165	PA
HILLSBOROUGH	WA4WTX	147.825	147.225	A
HILLSVILLE	WD4BTS	147.975	147.375	N A
HOPE MILLS	WB4TRW	146.445	147.045	N
JACKSONVILLE	WD4FVO	146.40	147.00	PA
JACKSONVILLE	WR4ATW	147.90	147.30	N
LAKE TOXAWAY	W4EHV	147.735	147.135	
LAKE TOXAWAY	WR4AGH	147.795	147.195	N
LAURINBURG	K4QWK	146.025	146.625	A
LENOIR	KN4K	147.93	147.33	
LEVEL CROSS/GBO	K4VUW	146.19	146.79	
LEWISVILLE	N4GGK	144.61	145.21	
LEXINGTON	K4IZM	146.31	146.91	PA
LILLINGTON	WA4FKI	144.87	145.47	N
LINCOLNTON	WD4PLY	144.85	145.45	N
LUMBERTON	WB4MDI	147.96	147.36	
MACO	WA4LED	147.66	147.06	
MADISON	KA4YFF	146.295	146.895	R
MANTEO	W4PCN	146.34	146.94	PA
MARION/OLD FORT	KA4DEC	147.705	147.105	
MAYODAN	N4GWZ	144.55	145.15	N C
MONROE	K4BGU	147.30	147.90	N

CVRA REPEATER SYMBOLS

Unmarked in First Code column-Full CVRA Members

N	NON Member CVRA	RB	Remote Base System
D	Delinquent Member	T	Tone Access Repeater
M	T-MARC Repeater	L	Linked Repeater
A	Open Autopatch	R	Radioteletype Rptr.
FA	Private Autopatch	V	Television (SS or ATV)
EA	Emerg. Autopatch	P	Proposed Repeater
		C	Under Construction
		O	Off Air Temporarily

MONROE	K4JCK	147.705	147.105	N	A
MORGANTON	K4RP	147.75	147.15		
MT AIRY	WA4ZAS	146.37	146.97		EA
MT AIRY	WA4CQK	147.78	147.18	N	
MT AIRY/FANCY GP	WD4MDP	144.73	145.33		
MT MITCHELL	WA4BVW	144.59	145.19		
N. WILKESBORO	K4ITL	144.77	145.37		L
NEW BERN	WD4JMS	146.01	146.61		A
NEWPORT	K4GRW	144.85	145.45	N	A
OLD FORT	KA4ROZ	146.355	146.955	N	C
OXFORD	WA4JCS	144.57	145.17		A
RALEIGH	N4BEA	144.67	145.27		PA
RALEIGH	N4BEA	144.89	145.49		PA
RALEIGH	W4DW	146.04	146.64		A
RALEIGH	K4BWC	146.13	146.73		A
RALEIGH	K4ITL	146.28	146.88		
RALEIGH	K4ITL	147.75	147.15		PA
REIDSVILLE	K4YFT	146.25	146.85		
ROANOKE RAPIDS	K4PUV	147.63	147.03		
ROARING GAP	WB4PZA	146.22	146.82		
ROBBINSVILLE	WB4ZQB	146.445	147.045	N	L
ROCKINGHAM	WA4ULA	146.355	146.955	N	
ROCKY MOUNT	WB4WAA	147.72	147.12		A
SALISBURY	W4EXU	146.13	146.73		
SANFORD	WB4EJJ	147.78	147.18		A
SHELBY	WD4DJA	146.28	146.88		
SHELBY	WD4DJA	147.945	147.345		A
SMITHFIELD	KD4JQ	146.37	146.97		A
SMITHFIELD	W4MKL	147.99	147.39		PA
SPRING LAKE	WB4KDC	146.115	146.715	N	
STATESVILLE	AI4O	146.085	146.685		PA
STATSVL/ASBRY MT	WA4JRL	147.645	147.045		
TUCKASEGEE	W8OMV	147.90	147.30	N	
UNION CROSS	WA4RBW	147.915	147.315		
WADESBORO	W4USH	146.235	146.835	N	
WAXHAW	WB4OOA	146.295	146.895		PA
WAXHAW	WA4ZRS	147.465	146.865		A
WAYNESVILLE	N4SM	147.87	147.27		PA
WHITEVILLE	K4MSD	147.81	147.21	N	C
WILLIAMSTON	KA4KNU	144.81	145.41		
WILMINGTON	N4WI	146.13	146.73		PA
WILMINGTON	WB4UNG	146.22	146.82		
WILMINGTON	WD4HMA	147.78	147.18	N	C
WILSON	WB4THL	146.16	146.76		
WIN-SAL/SAUTN MT	WB4KQN	144.79	145.39		L
WINSTON-SALEM	W4HKB	144.87	145.47	N	P
WINSTON-SALEM	WA4GIC	146.04	146.64		A

220 MHZ

ASHEVILLE	NC4N	223.00	224.60		
ASHVL/MT PISGAH	WA4BVW	222.34	223.94		
CANTON/CHBRS MT	WB4OKG	222.64	224.24		C
CHARLOTTE	KE4ZC	222.80	224.40		
CHARLOTTE	WB4KPF	223.08	224.68		LA
CHERRYVILLE	WB4UDS	223.36	224.96		
FAYETTEVILLE	W4EHF	222.42	224.02		
HICKORY	WR4ACM	222.42	224.02	N	
HIGH POINT	K4AZA	222.32	223.92		LPA
HILLSBOROUGH	WA4WTX	222.34	223.94		L
LENOIR	K4HTV	222.56	224.16	N	C
LINWOOD	KA4HUV	222.38	223.98	N	
LOCUST	WA4ZIA	222.40	224.00		
MORGANTON	WB4PML	223.20	224.80		
MT MITCHELL	WA4BVW	222.94	224.54		
RALEIGH	WA4PEN	223.04	224.64	N	
ROCKY MOUNT	KA4DAP	222.36	223.96	N	
SALISBURY	W4EXU	223.16	224.76		
STATESVILLE	WA4PVI	222.70	224.30	N	
WINSTON-SALEM	WA4YHH	223.04	224.64	N	
WSTFLD/SAUTN MT	W4RXG	223.10	224.70		R
WSTFLD/SAUTN MT	W4RXG	223.28	224.88		

440 MHZ

ASHVL/MT PISGAH	WA4COS	449.90	444.90	N	
CANTON/CHBRS MT	WB4OKG	449.80	444.80		C
CHARLOTTE	W4BFB	444.60	449.60		P
CHARLOTTE	WR4AEU	449.60	444.60		P
CHARLOTTE	WR4ALO	449.85	444.85	N	
FAYETTEVILLE	KB4ZW	449.40	444.40	N	C
GREENSBORO	WB4HZI	449.90	444.90	N	
HIGH POINT	K4AZA	447.90	442.90		L
HILLSBOROUGH	WA4WTX	449.10	444.10		
LOCUST	WA4LBT	448.70	443.70		
MT MITCHELL	WA4BVW	448.65	443.65		C
WIN-SAL/SAUTN MT	WB4KQN	448.00	443.00		LC

6-METERS

CARY	WR4AVP	52.35	53.35	N	
CHARLOTTE	KE4ZC	52.03	53.03		
HENDERSONVILLE	WB4YAO	52.01	53.01	N	
HENDERSONVILLE	WB4YAO	52.525	52.525	N	RB
HICKORY	WR4ACM	52.47	53.47	N	
HIGH POINT	K4AZA	52.15	53.15		L
NEWPORT	K4GRW	52.01	53.01	N	P
ROANOKE RAPIDS	K4PUV	52.03	53.03		C
STATESVILLE	WA4WRS	52.67	53.67	N	

TENNESSEE REPEATERS

2-METERS

ALAMO	WB4EDS	147.135	147.735		
ALTAMONT	WR4AWN	146.37	146.97	N	
ATHENS	WB4GRC	144.71	145.31	N	
BENTON	K4SIR	144.85	145.45	N	
BIRMINGHAM(ALA)	WD4BXA	147.285	147.885		A
BLOUNTVILLE	WB4RAV	144.71	145.31		
BLOUNTVILLE	WA4KMG	147.60	147.00		PA
BRISTOL	N4GFD	144.69	145.29	N	C
BRISTOL	K4ILW	146.07	146.67		A
BRISTOL	WD4CYZ	146.28	146.88		
BRISTOL/HLSTN MT	WR4ADO	146.16	146.76	N	
BROWNSVILLE	WA4ARU	146.655	146.055		PA
CENTERVILLE	WB4PZB	147.915	147.315	N	
CHATTANOOGA	KB4TZ	144.79	145.39		A
CHATTANOOGA	K4CMY	146.01	146.61		
CHATTANOOGA	AD4F	146.10	146.70	N	
CHATTANOOGA	W4DSK	146.19	146.79		A
CHATTANOOGA	WA4ZOK	147.60	147.00		PA
CHATTANOOGA-RTTY	K4CMY	144.53	145.13	N	
CLARKSVILLE	WA4TEQ	147.60	147.00	N	
CLEVELAND	WR4AQV	147.78	147.18	N	
COLUMBIA	WR4AIX	147.72	147.12	N	
COOKEVILLE	WA4UCE	146.07	146.67	N	A
COOKEVILLE	N4WS	147.81	147.21		
COVINGTON	WA4VXW	147.93	147.33	N	
CROSSVILLE	KE4RX	146.04	146.64	N	
CROSSVILLE	W4CV	147.93	147.33	N	
DAYTON/RHEA CTY	K4ZLA	147.99	147.39	N	
DECATUR-PONE KB	W4RJC	144.55	145.15		
DONELSON	WB0NOO	147.855	147.255	N	
DYERSBURG	AA4HF	146.145	146.745	N	
FAYETTEVILLE	KO4G	146.265	146.865	N	
FAYETTEVILLE	W4NIQ	147.63	147.03	N	
FISHERVILLE	N4DRL	144.65	145.25	N	A
FRANKLIN	WB4HCK	144.55	145.15	N	RB
FRAYSER	W4UFT	146.10	146.70	N	
FRAYSER	W4ZJM	146.43	147.03	N	
GALLATIN	KA4LUG	147.84	147.24		PA
GALLATIN	WA4YOC	147.87	147.27		
GALLATIN	WB4DLQ	147.99	147.39	N	
GREENEVILLE	N4TV	144.65	145.25		
GREENEVILLE	WB4TUO	144.81	145.41		
GREENEVILLE	WA4LYF	147.66	147.06		A
GTLBG/COVE MTN	WA4KJH	146.25	146.85		
HENDERSONVILLE	N4WF	147.63	147.03	N	
HERMITAGE	WB4RAB	144.61	145.21		C
HOHENWALD	WB4LHV	147.765	147.165	N	
HORNBEAK	WA4OXK	146.865	146.265	N	
JACKSON	W4WKZ	147.81	147.21	N	
JASPER	KA4LGN	144.59	145.19	N	
JOHNSON CITY	WB4SQC	144.53	145.13		PA
JOHNSON CITY	WB4IKB	146.19	146.79		L
JOHNSON CITY	KE4FH	147.87	147.27		A
KNGSPT/BAYS MT	W4TRC	146.37	146.97		
KNOXVILLE	WB4JSD	144.51	145.11		R
KNOXVILLE	K4KFD	144.61	145.21	N	A
KNOXVILLE	WA4TEM	144.73	145.33		A
KNOXVILLE	WA4GZE	144.77	145.37		
KNOXVILLE	WB4GBI	144.83	145.43		
KNOXVILLE	WB4GRI	144.83	145.43		
KNOXVILLE	WB4GBI	144.87	145.47		
KNOXVILLE	WB4IOB	146.13	146.73		
KNOXVILLE	K4HXD	146.34	146.94		
KNOXVILLE	K4HXD	147.675	147.075		A
KNOXVILLE	W4BBB	147.90	147.30		EA
KNOXVILLE	WB4HAP	147.96	147.36		
LAFOLLETTE/WLT	W4TZG	146.07	146.67		
LAKE CITY	WB4OAH	146.22	146.82	N	
LEBANON	WR4BBM	146.13	146.73	N	
LEXINGTON	WB4LGH	146.43	147.03	N	
LOUDON	KE4SK	144.57	145.17		
MADISON	WB4NTM	146.04	146.64	N	
MADISON	W4KFK	147.945	147.345	N	
MANCHESTER	W4FOT	146.10	146.70	N	A
MARTIN	WA4ZQX	146.625	146.025		
MCMINNVILLE	WA4CPJ	144.63	145.23	N	A
MCMINVL/SHT MT	W4KKO	144.89	145.49		
MEDINA	K4BEZ	146.37	146.97		A
MEMPHIS	WA4VIP	144.81	145.41	N	
MEMPHIS	WA4KOG	144.89	145.49	N	
MEMPHIS	WB4MQD	145.33	PKET	N	
MEMPHIS	W4GYS	146.04	146.64	N	
MEMPHIS	WR4AOG	146.10	146.70	N	R
MEMPHIS	KA4JXT	146.13	146.73	N	
MEMPHIS	WR4ABS	146.19	147.51	N	
MEMPHIS	W4BS	146.22	146.82	N	
MEMPHIS	WA4KOG	146.25	146.85	N	A
MEMPHIS	WA4ETE	146.28	146.88	N	A
MEMPHIS	K4BN	146.34	146.94	N	A
MEMPHIS	K4FZJ	146.40	147.00	N	
MEMPHIS	WA4MQQ	146.46	147.06	N	
MEMPHIS	W4ZJM	147.63	147.03	N	L
MEMPHIS	WR4AWT	147.69	147.09	N	
MEMPHIS	WB4DAZ	147.72	147.12	N	AT
MEMPHIS	WA5KUB	147.75	147.15	N	
MEMPHIS	WA4KOG	147.78	147.18	N	
MEMPHIS	WD4APK	147.84	147.24	N	
MEMPHIS	WR4AZC	147.87	147.27	N	

MEMPHIS	WA4ADT	147.90	147.30	N	
MEMPHIS	W4MMI	147.96	147.36	N	
MEMPHIS	WR4ASR	147.99	147.39	N	
MIDDLEBRO(KY/TN)	W4PPM	144.63	145.23	N	
MORRISTOWN	WD4RTT	147.63	147.03		
MORRISTOWN	WB4OAH	147.825	147.225	N	
MOUNTAIN CITY	WD4OMO	144.87	145.47	N	
MT. JULIET	WB4DOR	144.79	145.39	N	C
MURFREESBORO	WB4LHO	144.57	145.17		PA
NASHVILLE	N4AJS	144.65	145.25		PA
NASHVILLE	WB4FQW	144.73	145.33	N	
NASHVILLE	KA4KNG	144.75	145.35	N	
NASHVILLE	WB4ZSA	144.83	145.43		
NASHVILLE	N4ARK	144.87	145.47	N	
NASHVILLE	WA4PCD	146.01	146.61	N	
NASHVILLE	WB4NTM	146.07	146.67	N	
NASHVILLE	WB4QES	146.16	146.76	N	
NASHVILLE	WR4AFA	146.19	146.79		PA
NASHVILLE	WA4PCD	146.25	146.85	N	
NASHVILLE	WB4QES	146.28	146.88	N	
NASHVILLE	WA4PCD	146.34	146.94	N	
NASHVILLE	AF4K	147.615	147.015	N	
NASHVILLE	N4WF	147.705	147.105	N	
NASHVILLE	WB4JVP	147.75	147.15	N	
NASHVILLE	WA4PCD	147.78	147.18	N	
NASHVILLE	WB4ZSA	147.90	147.30		PA
NASHVILLE	N4AJS	147.93	147.33		PA
NASHVILLE	WB4NTM	147.96	147.36	N	
NASHVILLE	WB4JTN	147.975	147.375	N	
OAK RIDGE	W4SKH	146.28	146.88		
OAK RIDGE	W4SKH	146.37	146.97		A
OAK RIDGE	K4EAJ	147.72	147.12		L
OAK RIDGE	K4EAJ	147.75	147.15		R
PARIS	K4KLX	147.96	147.36	N	
PIKEVILLE(KY)	KA4BOH	144.59	145.19	N	
PIKEVILLE(KY)	N4ETG	146.19	146.79	N	
PULASKI	KA4CCL	146.775	146.175	N	
SAVANNAH	WB4DQU	146.31	146.91	N	
SHELBYVILLE	WR4AQM	147.66	147.06	N	
SHORT MTN	W4YXA	146.31	146.91		
SPARTA	W4BSA	147.69	147.09		A
STANTONVILLE	KA4OHC	144.79	145.39		
UNION CITY	WA4YGM	146.10	146.70	N	
WAVERLY	NO4Q	146.685	146.085		
WINCHESTER	WR4AFH	146.22	146.82	N	

220 MHZ

CHATTANOOGA	K4VCM	223.18	224.78		A
CHATTANOOGA	WA4ZOK	223.30	224.90		
CLARKSVILLE	KF4GP	222.34	223.94	N	
GALLATIN	WB4ZSA	222.38	223.98		PA
GREENEVILLE	WB4NKM	223.34	224.94		A
KNOXVILLE	WA4YON	222.66	224.46		EA
KNOXVILLE	W4BBB	222.90	224.50		C
KNOXVILLE	KB4CTS	223.22	224.82	N	C
MEMPHIS	W4ZJM	222.34	223.94	N	L
NASHVILLE	WB4RAB	222.30	223.90	N	
NASHVILLE	N4DKA	222.42	224.02	N	
ROBERTSON CO.	WA4KHJ	222.46	224.06	N	C

440 MHZ

ALAMO	WB4EDS	448.75	443.75		L
CHATTANOOGA	WA4ZOK	439.25	427.25		V
CHATTANOOGA	WA4NFO	449.10	444.10		
FISHERVILLE	N4DDS	449.30	444.30	N	A
FRANKLIN	WB4EPG	447.80	442.80	N	
GALLATIN	WA4YQC	449.35	444.45		
GALLATIN	WD4KWP	449.45	444.45		PA
GREENEVILLE	WB4NKM	449.65	444.65		
KNOXVILLE	K4HXD	449.30	444.30		
KNOXVILLE	WB4HAP	449.50	444.50		
KNOXVILLE	KB4NK	449.60	444.60		EA
KNOXVILLE	WB4GBI	449.70	444.70		C
MEDINA	K4BEZ	447.05	442.05		AL
MEMPHIS	WA4KOG	444.40	449.40	N	
MEMPHIS	WA4QWW	447.80	442.80	N	
MEMPHIS	W4ZJM	448.00	443.00	N	
MEMPHIS	WA4DOA	448.40	443.40	N	A
MEMPHIS	KA4JKT	449.50	444.50	N	A
MEMPHIS	WD4APK	449.80	444.80	N	
NASHVILLE	WA4PCD	449.675	444.675	N	
NASHVILLE	WA4PCD	449.675	444.675	N	C
NASHVILLE	N4TK	449.775	444.775	N	
NASHVILLE	WB4THG	449.875	444.875	N	
NASHVILLE	WB4QES	449.975	444.975	N	
OAK RIDGE	K4EAJ	449.40	444.40		L

6-METERS

CHATTANOOGA	WB4LRD	52.01	53.01	N	
KNOXVILLE	WB4IOB	52.15	53.15		A
KNOXVILLE	WA4YON	52.25	53.25		
KNOXVILLE	K4HXD	52.76	52.525		
MEMPHIS	WA4KOG	52.01	53.01	N	

10-METERS

KNOXVILLE	K4HXD	29.52	29.62		C
MEMPHIS	W4ZJM	29.52	29.62	N	

VIRGINIA REPEATERS

2-METERS

ALEXANDRIA	WD4PDP	146.055	146.655	M	
ALEXANDRIA	W4HFH	147.915	147.315	M	
ALTAVISTA	WA4ISI	146.055	146.655	N	
ARLINGTON	WA4YVN	146.445	147.045	M	
BARREN SPRINGS	K4HZS	146.07	146.67		
BEDFORD	WB4JBJ	147.705	147.105		LR
BERRYVILLE	WA4TSC	147.90	147.30	M	
BLACKSBURG	AB9I	146.115	146.715		
BLAND	N4AZJ	144.75	145.35	N	L
BLUEFIELD	W8MOP	144.89	145.49	N	A
BRISTOL	K4ILW	146.07	146.67	N	A
BRISTOL	WDECYZ	146.28	146.88		
BRUMLEY MT	WR4ATJ	146.01	146.61	N	
CHARLOTTESVILLE	WA4TFZ	146.16	146.76		
CHARLOTTESVILLE	WA4TFZ	146.325	146.925		
CHESAPEAKE	N4GSP	146.01	146.61		
CHESAPEAKE	N4SD	146.19	146.79		A
CHESTERFIELD	KA4CBB	147.96	147.36		
CLIFTON FORGE	K4QEL	147.90	147.30	N	
COVINGTON	WA4HTI	146.22	146.82	N	
CULPEPPER	WR4BCS	147.72	147.12	M	
DANVILLE	WR4AHG	147.95	147.35	N	
DANVILLE(DCC)	WB4GJG	146.325	146.925		
DANVILLE/WHT OAK	K4WQS	146.10	146.70		
DEWITT	WA4ZOZ	146.43	147.03	N	
DUBLIN	KT4Z	147.78	147.18	N	
DUFFLD/POWLL MT	KA4BHH	146.10	146.70		C
FAIRFAX	W4LBL	146.19	146.79	N	PA
FAIRFAX	K4VYN	146.31	146.91	N	PA
FALLS CHURCH	W4AQD	144.75	145.35	M	
FARMVILLE	WB4NWP	146.31	146.91	N	A
FINCASTLE	W4WIC	146.04	146.64		
FOREST	K4STE	146.16	146.76		A
FRANKLIN	K4SPS	147.90	147.30	N	PA
FREDRICKSBURG	WB4LNT	147.615	147.015		
GALAX	N4VL	144.53	145.13	N	
GALAX	WA4ZIV	144.83	145.43	N	
GALAX	WA4DFH	147.735	147.135		
GALAX/BRIRP MT	N4VL	147.69	147.09		EA
GATE CITY	WD4GTA	147.945	147.345	N	
GRUNDY	K4HWQ	147.92	147.32	N	A
GUM SPRING	KB4GX	147.87	147.27	N	
HAMPTON	K4UMI	145.23	PKET	N	
HAMPTON	WR4ALW	146.13	146.73		
HAMPTON	K4UMI	146.34	146.94	N	T
HAYSI	WR4AWR	147.60	147.00	N	
HAZEL MT	WD4CYZ	146.235	146.835	N	
HILLSVILLE	WD4BTJ	147.975	147.375		A
JONESVILLE	WA4OVC	146.31	146.91		
LEXINGTON	WA4WBD	146.07	146.67		
LEXNGTN/COLE MT	K4POD	147.93	147.33		
LYNCHBURG	WR4AXO	146.01	146.61	N	
LYNCHBURG	WA4RTS	147.795	147.195		
LYNCHBURG	W4OSH	147.975	147.375	N	PA
MANASSAS	WD4JCE	144.67	145.27	M	R
MANASSAS	W1CRO	146.37	146.97		PA
MARION	N4BIW	146.04	146.64		
MARTINSVILLE	AB4L	147.885	147.285		
MCLEAN	WD4IWG	147.81	147.21	M	R
MT. LK/BALD KNB	K4TUE	146.31	146.91		
NEW MARKET	WB4DAK	146.025	146.625		
NEWPORT NEWS	WB4CTF	147.765	147.165		PA
NEWPORT NEWS	WA4OHX	147.975	147.375		PA
NORFOLK	NE4D	146.10	146.70		
PARKSLEY	WA4TVS	147.855	147.255	N	EA
PETERSBURG	K4SII	147.78	147.18	N	
PETERSBURG	K4ARO	147.84	147.24		TPA
PETERSBURG	K4ARO	147.99	147.39		
PORTSMOUTH	N4PR	146.25	146.85	N	
RADFORD	KC4WA	147.645	147.045		
RICHMOND	W4SQT	144.83	145.43		
RICHMOND	WB4QFY	146.04	146.64	N	
RICHMOND	WR4ACW	146.28	146.88	N	PA
RICHMOND	W4ZA	146.34	146.94		T
RICHMOND	WA4ECM	147.66	147.06	N	
RICHMOND	N4HB	147.735	147.135		
ROANOKE	WB4QOJ	146.145	146.745		LPA
ROANOKE	WR4AHT	146.34	146.94	N	AO
ROANOKE/POOR MT	W4CA	146.385	146.985		L
SALEM	W4PDL	146.28	146.88	N	
SOUTH BOSTON	WD4LBM	146.46	146.06		
STAUNTON	WA4ZBP	146.25	146.85		
STAUNTON	W4WRN	147.645	147.045	N	
STERLING	WA4TXE	146.115	146.715	M	
SUFFOLK	WR4AKS	146.40	147.00	N	PA
TAZEWELL	WD4DZE	147.75	147.15	N	
VIRGINIA BEACH	WA4KXV	146.37	146.97		PA
VIRGINIA BEACH	WA4SBC	147.645	147.045	N	
WARRENTON	WB4FJT	147.765	147.165	M	
WAKSAW	WA4UAF	147.93	147.33		
WAYNESBORO	W4BLD	147.63	147.03		
WAYNSBR/AFTON MT	W4PNT	147.675	147.075		
WILLIAMSBURG	W4NTG	146.07	146.67		
WINCHESTER	W4RKC	146.22	146.82		
WISE/HIGH KNOB	K4AXO	147.81	147.21		
WOODBRIDGE	WB4FQR	147.84	147.24	M	A
WYTHEVILLE	WA4EMS	146.175	146.775	N	

220 MHZ

ALEXANDRIA	WA4CCF	223.22	224.82	M	
DAN/WHT OAK	K4OAK	223.16	224.76	N	
FAIRFAX	K4GCM	222.34	223.94	N	
FALLS CHURCH	N4CHP	222.22	223.82	M	
FRIES	WA4DFH	222.74	224.34		
ROANCKE/POOR MTN	WB4DBB	223.34	224.94		

440 MHZ

ALEXANDRIA	WR4AAG	439.25	426.27	M	V
ALEXANDRIA	W4HFH	449.60	444.60	M	
ANNANDALE	WR4AQG	444.85	449.85	M	PL
ARLINGTON	K8ZOA	449.00	444.00	M	L
CHARLOTTESVILLE	WA4TFZ	449.25	444.25		
COVINGTON	WA4HTI	447.25	442.25	N	
FAIRFAX	K4JYF	444.75	449.75	N	
FALLS CHURCH	WB8CRK	449.45	444.45	M	L
FINCASTLE	W4WIC	448.75	443.75		
HAMPTON	K4UMI	448.65	443.65	N	
LEXNGTN/COLE MT	K4PQD	449.15	444.15		
LYNCHBURG	WB4DBB	449.35	444.35		L
LYNCHBURG	K4HEX	449.50	444.50	N	RR
MANASSAS	WD4JCE	444.225	449.225	M	L
PETERSBURG	K4ARO	449.50	444.50		
PETERSBURG	WA4MRJ	449.85	444.85		
ROANOKE	WR4AFE	447.75	442.75	N	
ROANCKE/POOR MT	W4CA	442.50	447.50		L
TYSONS CORNER	WB6GUS	448.50	443.50	M	
VIRGINIA BEACH	WA4KXV	449.95	444.95		
WAYNESBORO	W4BLD	449.30	444.30		PA
WAYNSBR/AFTON MT	W4BLD	449.05	444.05		
WOODBRIDGE	WB4FQR	444.90	449.90	M	

6-METERS

ABINGTON	WR4ATJ	52.01	53.01	M	L
ALEXANDRIA	WA4CCF	52.13	53.13	M	P
DANVILLE(DCC)	WB4GJG	52.13	53.13		
FAIRFAX	KA4DCS	52.58	52.48	M	
LEXNGTN/COLE MT	K4PQD	52.01	53.01		L
LYNCHBURG	WB4DBB	52.15	53.15		
NORFOLK	W4NV	53.525	52.525	N	
NORTN/HIGH KB	K4LSP	52.01	53.01	N	
SOUTH BOSTON	WB4YWH	52.07	53.07	N	C

10-METERS

CHARLOTTESVILLE	K4RKA	29.60	29.60	N	RBC

SOUTH CAROLINA REPEATERS

2-METERS

AIKEN	N4ADM	147.885	147.285		
ANDERSON/LOCAL	N4SZ	146.37	146.97		PA
ANDSN/SASFRAS MT	W4FVV	146.19	146.79		
BAMBERG	WA4DFP	144.73	145.33	N	
BEAUFORT	KB4CY	146.01	146.61	N	
CAROWINDS	AA4SC	147.78	147.18	N	
CHARLESTON	K4LWS	146.06	146.66	N	
CHARLESTON	K4ILT	146.16	146.76	N	PA
CHARLESTON	W4IVE	146.34	146.94	N	T
CHERAW	KA4ABW	147.735	147.135		PA
COLUMBIA	N4EOY	146.07	146.67		
COLUMBIA	K4AVU	146.28	146.88		
COLUMBIA	K4LNU	146.34	146.94		
COLUMBIA	KA4FEC	147.915	147.315		
COLUMBIA	WB4VLY	147.93	147.33		
COLUMBIA	K4LNU	147.96	147.36		PA
DILLON/PEE DEE	NN4N	146.145	146.745		EA
FLORENCE	W4ULH	146.25	146.85		
FLORENCE	WA4ISM	146.37	146.97		PA
FT JACKSON	WB4OCB	146.16	146.76		
GASTON	WB4NEP	144.61	145.21		PA
GEORGETOWN	WD4DMI	147.975	147.375		
GOOSE CREEK	WD4NUN	144.85	145.45		T
GOOSE CREEK	W4NAT	147.78	147.18	N	
GREENVILLE	W4AZT	146.10	146.70		A
GREENVILLE	K4LEO	147.375	147.975	N	PA
GREENVILLE	WR4	147.675	147.075	N	PA
GREENWOOD	WB4UGA	147.765	147.165		PA
GREER	W4IOQ	146.34	146.94	N	
GRNVLE/CSRS HD	W4NYK	146.01	146.61		
GRNVLE/PARIS MT	W4NYK	146.22	146.82		PA
HODGES/GREENWOOD	KB4YF	144.53	145.13	N	
LAUSON	WB4LET	147.87	147.27		PA
LANCASTER	W4PAX	146.10	146.70		
LANCASTER	WB4BGF	147.84	147.24		
LAURENS	WA4UZA	146.25	146.85	N	A
LEXINGTON	WR4AGK	147.255	146.835	N	
LITTLE MT.	K4AVU	147.81	147.21		
LONG MT	WA4JRJ	147.87	147.27	N	
MARION	W4YLT	146.40	147.00	N	EA
MONCKS CORNER	WA4DDK	147.75	147.15	N	
MYRTLE BEACH	WD4JMT	146.01	146.61		A
MYRTLE BEACH	WA4YEE	147.72	147.12	N	
MYRTLE BEACH, N	WA4JYR	147.63	147.03	N	PA
N. AUGUSTA	K4FKJ	146.13	146.73		
N. AUGUSTA	K4VF	146.34	146.94		
ORANGEBURG	WR4AQY	147.69	147.09	N	A
PICKENS	WB4YXZ	146.40	147.00		A
PROSPERITY	WB4OCB	147.84	147.24		
ROCK HILL	K4YTZ	146.325	146.925		PA
ROCK HILL	K4YTZ	146.43	147.03		PA
ROCKY SPUR	KS4I	147.885	147.285		
SIMPSONVILLE	WA4LDP	146.13	146.73		
SIMPSONVILLE	WA4SDT	147.75	147.15	N	R
SPARTANBURG	K4JLA	147.69	147.09	N	PA
SUMMERVILLE	WR4AUV	146.19	146.79	N	
SUMTER	WB4AER	146.04	146.64		
SUMTER	WA4UMU	147.615	147.015		A
SUMTER	W4VFR	147.66	147.06	N	
WHITE HALL	W4BWZ	146.31	146.91		

220 MHZ

COLUMBIA	N4EOY	222.30	223.90		
EASLEY/SASFRS MT	KJ4X	222.46	224.06		
PICKENS	WB4QHF	222.80	224.40		P
PICKENS/CSRS HD	WB4QHF	222.54	224.14		

440 MHZ

CHARLESTON	N4SC	449.10	444.509	N	T
COLUMBIA	KC4YI	449.10	444.10		
ROCK HILL	KA4RFA	442.25	447.25	N	

6 METERS

PICKENS	WB4YXZ	52.41	53.41		C
PICKENS/CSRS HD	WB4QHF	52.525	RMT.BS		CBR

WEST VIRGINIA REPEATERS

2-METERS

ALDERSON	WR8AKZ	146.13	146.73	N	
BECKLEY	WD8POF	144.77	145.37	N	LA
BKLY/FLAT TOP MT	K8BO	146.25	146.85	N	A
BLUEFIELD	W8MOP	144.89	145.49		A
BOLT MT	WB8LVH	144.57	145.17	N	L
BRIDGEPORT	WR8ALC	147.705	147.105	N	EA
BRIDGEPORT	K8VNQ	147.72	147.12		EAL
BUCKHANNON	K8WYH	146.25	146.85	N	
CHARLESTON	WR8AER	146.22	146.82	N	
CHARLESTON	WB8CQV	146.28	146.88	N	
CLARKSBURG	WB8ZVS	146.22	146.82	N	A
CLARKSBURG	WB8DTM	146.50	52.525	N	RB
COAL MTN	WB8KAD	146.12	146.72	N	A
COAL MTN	WB8OEC	147.75	147.15	N	
COTTAGEVILLE	WR8AKV	146.31	146.91	N	
DUNBAR	K8VKI	147.72	147.12		
ELKINS	WR8AOH	146.04	146.64	N	
FAIRMONT	W8SP	146.31	146.91		
FRANKLIN	W3RUA	147.945	147.345		
GRAFTON	K8VNQ	147.975	147.375		L
HUNTINGTON	WB8EZR	146.04	146.64	N	
HUNTINGTON	WR8AGH	146.16	146.76	N	A
HUNTINGTON	KA8BKX	147.90	147.30	N	
JUMPING BRANCH	K8BUX	146.355	146.955	N	C
KINGSTON/LICK KB	W8FG	144.87	145.47		
LAYLAND/MANN MT	N8BZS	144.71	145.31	N	L
LEON	WB8NMT	147.78	147.18	N	
LOGAN	WD8KWC	144.63	145.23		
LOGAN	WA8ZLR	146.09	147.11	N	D
LOGAN	WR8ADD	146.37	146.97	N	
MADISON	KA8JYR	146.06	147.06	N	TA
MARMET/BEE MT	WA8YDF	144.53	145.13	N	
MARTINSBURG	WB8VUZ	147.855	147.255	N	
MCMECHEN	WA8ULB	146.31	146.91		
MCMECHEN	N8CFX	147.75	147.15		
MORGANTOWN	K8LG	144.83	145.43		L
MORGANTOWN	WB8YZT	146.085	147.955	N	
MORGANTOWN	W8CUL	146.16	146.76		LPA
MULLENS	WR8AKX	147.63	147.03	N	LA
NEW MARTINSVLLE	WR8ABY	146.34	146.94	N	
OAK HILL	W8GH	146.19	146.79		PA
PARKERSBURG	WA8CRW	146.37	146.97		PA
PARKERSBURG	WD8AXY	147.99	147.39		
PARSONS	K8VNQ	144.73	145.33		EAL
PIE HORSE MT	N8APH	144.67	145.27	N	A
POINT PLEASANT	W8KNM	147.66	147.06	N	
PRINCETON	WB8NRK	146.46	147.06		A
RAVENSWOOD	WD8JNU	146.07	146.67		
RAVENSWOOD	WD8JNU	146.10	146.70		R
RICHWOOD	K8VKB	146.34	146.94		
SCOTT DEPOT	K8SLI	147.87	147.27	N	A
SPENCER	WA8SAK	146.01	146.61	N	
ST ALBANS	WB8GDY	146.40	147.00		
ST ALBANS	K8BCH	147.975	147.375		R
TERRA ALTA	WB8PHU	147.60	147.00		PA
WEIRTON	KC8JN	146.34	146.94		A
WELCH	WB8SXZ	144.85	145.45		
WHEELING	W8YFX	144.59	145.19	N	
WHEELING	W8JDH	146.16	146.76	N	

220 MHZ

HUNTINGTON	KA8BKX	222.54	224.14	N
KINGSTON/LICK KB	W8FG	223.14	224.74	

440 MHZ

KINGSTON/LICK KB	KA8EMX	449.80	444.80	N
MORGANTOWN	K8LG	449.70	444.70	L
MORGANTOWN	W8CUL	449.80	444.80	PA

GEORGIA REPEATERS

2-METERS

ADAIRSVILLE	WB4LRA	146.085	146.685	
ALBANY	WR4ADM	146.10	146.70	
ALBANY	W4MM	146.13	146.73	
ALBANY	WR4ANB	146.22	146.82	
AMERICUS	WR4AQH	147.87	147.27	
ASHBURN	WA4NTF	144.63	145.23	
ASHBURN	K4QT	147.285	147.885	
ATHENS	WA4BKF	146.13	146.73	
ATHENS*	K4TQU	147.375	147.975	
ATLANTA	NC4E	144.69	145.29	
ATLANTA	WB4LBM	144.71	145.31	
ATLANTA	WR4ABE	146.04	146.64	T
ATLANTA	W4DDC	146.22	146.82	
ATLANTA	WR4ABC	146.37	146.97	
ATLANTA	WR4ARK	146.40	147.00	PA
ATLANTA	K4SMX	147.795	147.195	
ATLANTA	W4LUZ	147.855	147.255	
ATLANTA/BELL*	W4PME	144.81	145.41	
ATLANTA/GA TECH*	W4AQL	144.55	145.15	
AUGUSTA*	W4ALK	147.72	147.12	
AUGUSTA*	N4BMA	147.78	147.18	R
BALDWIN	WD4NHW	147.78	147.18	
BLAIRSVILLE	WA4EZN	147.70	147.10	
BRUNSWICK	K4TVE	146.13	146.73	
BUFORD	WD4JXR	147.075	147.675	P
BUFORD	WD4JXR	147.87	147.27	
CANTON	KE4PN	144.67	145.27	
CARROLLTON	W4FWD	146.04	146.64	
CEDARTOWN	W4CMA	147.72	147.12	
CLEVELAND	K4FOW	144.69	145.29	
CLEVELAND	K4FOW	147.015	147.615	
CLOUDLAND	N4AHE	147.225	147.825	
COHUTTA-RTTY	W4KAU	146.46	147.06	R
COLUMBUS	WA4QHN	146.01	146.61	
COLUMBUS	N4BJZ	146.28	146.88	
CONYERS	WB4SLZ	147.21	147.81	
COVINGTON	WA4ASI	146.925	146.325	
CUMMING	K4BYK	147.75	147.15	PA
DALLAS	K4DVJ	146.25	146.85	
DALTON*	N4BZJ	144.63	145.23	
DALTON*	N4BZJ	144.65	145.25	
DALTON*	KA4WIZ	147.315	147.915	
DECATUR*	W4VTA	144.51	145.11	
DOUGLASVILLE	KB4EO	147.96	147.36	
DUBLIN	WA4HZX	147.96	147.36	
FAYETTEVILLE	K4UWN	146.685	146.085	
FOLKSTON	K4DMK	146.19	146.79	
FOREST PARK	K4KQK	144.65	145.25	
FORSYTH	WR4AQA	147.315	147.915	
GAINESVILLE	WD4IWJ	146.31	146.91	
GAINESVILLE*	W4NSD	146.07	146.67	A
GRIFFIN	WB4GWA	144.79	145.39	
GRIFFIN	WR4AIV	146.31	146.91	
GRIFFIN	WR4AEA	146.43	147.43	
HAMILTON	WB4ULJ	144.59	145.19	
HAMILTON	N4GDG	146.835	146.235	
HAMILTON-RTTY	K4ACH	144.77	145.37	
HAMPTON	WA4DIW	144.57	145.17	
HAPEVILLE	WR4ABN	147.63	146.03	
HARTWELL*	KY4T	146.895	146.295	A
IRWINTON	WB4NFG	147.84	147.24	
JASPER	W4OOM	146.10	146.70	
JESUP	WA4EQL	146.07	146.67	
JONESBORO	WA4DIW	144.57	145.17	
JONESBORO	WA4OGE	144.73	145.33	
JONESBORO	W4BOC	144.85	145.45	
KENNESAW	WB4UPC	144.83	145.43	
LAGRANGE	WR4	146.40	147.00	
LAGRANGE	WB4BXO	147.93	147.33	
LYONS	K4HAO	146.22	146.82	
MACON	W4BKM	146.06	146.66	
MACON	K4ICT	147.66	147.06	T
MARIETTA	WB4KJB	146.13	146.73	
MARIETTA	W4BTI	146.28	146.88	
METTER	W4TYM	147.645	147.045	
MILLEDGEVILLE	KA4WDF	144.91	145.11	A
MILLEDGEVILLE	WB4OOJ	146.10	146.70	
MOULTRIE	WD4KOW	146.19	146.79	
NEWNAN*	K4SEX	144.53	145.13	
NEWNAN*	K4SEX	146.19	146.79	
PRESTON	W4TOV	146.385	146.985	
QUITMAN	WA4NKL	146.28	146.88	
RINGGOLD	WR4ABZ	146.715	146.115	
RIVERDALE	WA4EPK	144.61	145.21	
ROME	W4VO	146.34	146.94	
ROME	K4HNM	147.30	147.90	
ROSWELL	N4CLA	144.87	145.47	
SANDY SPRINGS	WB4CPL	144.75	145.35	
SAVANNAH	K4LNX	144.63	145.23	
SAVANNAH	K4NLX	144.63	145.23	
SAVANNAH	K4NLX	146.10	146.70	PA
SAVANNAH*	W4HBB	146.28	146.88	
SAVANNAH*	W4HBB	146.37	146.97	N A
SMYRNA	WA4YUR	144.61	145.21	
STATESBORO	K4MEF	147.81	147.21	
STONE MTN	W4BOC	146.16	146.76	
SVR CRK/MT ALTO	K4HNM	147.90	147.30	
SWAINSBORO	K4VYX	146.19	146.79	
THOMASTON	K4IMK	147.99	147.39	
THOMASVILLE	K4UFM	147.66	147.06	
TOCCOA*	KA4DIP	147.93	147.33	PA
VALDOSTA	W4APS	146.16	146.76	
VALDOSTA	WA4SMH	147.135	147.735	
VIENNA	WA4RWS	144.89	145.49	
WARNER ROBINS	WB4BDP	146.01	146.61	
WARNER ROBINS	W4HON	146.25	146.85	A
WARNER ROBINS	W4MST	147.015	147.615	R
WAYCROSS	WR4AMK	146.04	146.64	
WEST BROW	KC4EV	147.81	147.21	N
WRIGHTSVILLE	WA4RVB	146.34	146.94	

220 MHZ

ATLANTA	KK4C	223.22	224.82	PA
CANTON	WB4UPC	222.34	223.94	
CANTON	WB4UPC	223.06	224.66	
KENNESAW	WB4UPC	222.52	224.12	
KENNESAW	WB4UPC	223.34	224.94	

440 MHZ

ALBANY	WA4GKI	439.25	427.25	V
BUCKHEAD	WA4YNZ	444.60	449.60	
COLUMBUS	WA4QHN	449.20	444.20	
KENNESAW	WB4IXF	449.50	444.50	
STONE MTN	W4BOC	444.25	449.25	

6-METERS

MARIETTA	WB4UPC	53.05	52.05	

10-METERS

ATLANTA*	KE4ID	29.52	29.62	

*CVRA-SERA Full Member Repeater

EAST KENTUCKY REPEATERS

2-METERS

ASHLAND	WR4ACQ	146.34	146.94	
ASHLAND	WR4ALH	147.84	147.24	
BETSY LAYNE	WA4YCU	146.035	146.635	
BLACK MOUNTAIN*	NQ4C	147.94	147.34	
ELKHORN CITY	WR4AWR	147.60	147.00	EAC
GRAYSON	N4BDX	144.79	145.39	
HAZARD	K4VHF	146.07	146.67	
JENKINS	WD4PDJ	147.99	147.39	
LOUISA	WA4SWF	146.13	146.73	
MAYTOWN	N4ESP	146.28	146.88	O
MOREHEAD	K4GFY	146.31	146.91	
PANTSVILLE	WB4PLK	147.63	147.03	
PIKEVILLE	KA4BQH	146.25	146.85	
PIKEVILLE*	KA4BQH	144.59	145.19	O
PIKEVILLE*	N4ETG	146.19	146.79	PA

*CVRA-SERA Full Member Repeater

YOUR STATE DIRECTOR OR HIS ASSISTANT CAN BE OF VALUABLE SERVICE TO YOU – CONTACT HIM FOR HELP IN COORDINATION

Squadron Communicators Respond

Fourteen CAP communicators responded to an emergency call by the Forsyth County Amateur Radio Emergency Services Saturday 14 May as a result of a violent thunderstorm that slashed through the Country Club Road area. The storm cut power in a large section of Winston-Salem and disrupted phone service in a larger area, including at Forsyth Hospital. The hospital lost both external and internal phone communications. Tom Pugh, (KB4JO) Asst. Emergency Coordinator for the Forsyth ARES, offered the ARES handi-talkie capability which was accepted. He sounded the high level alert at about 6 pm. CAP member Boyce Rogers (RD 383/WB4WOM) picked up the call on the 04/64 repeater and immediately went to the CAP repeater to alert the squadron. Bill Marshall, Winston-Salem Squadron Commander, (RD 368) alerted other squadron members by phone while Rogers, picked up check-ins on the radio. Within minutes 25 communicators including the 14 CAPers had responded and had either headed for the hospital or were ready to go. Another group of amateurs was ready to come up from Lexington.

As the hams and CAPers headed for the hospital, HT's in hand, the hospital staff had parking and directions signs up to show the communicators where to go being hung in place. Then the phones resurrected and the "stand-down" went out.

In spite of the stand-down, Forsyth and Davidson County ARES and CAP proved their capability to respond and the Winston-Salem Squadron its readiness to support ARES.

CAP-Hams and Jack Moorefield (RD 3/N4INE), Holli Nelson (RD 62/KB4AKM), Fred Horton (RD 369/NA4P), Bill Batts (RD 361/KB4EAK), Marcia Nelson (RD 362/KB4ECQ), Wayne Byerly (RD 384/N4BOJ), Boyce Rogers (RD 383/WB4WOM), Dan Renfro (RD 227/WA4PXV), and CAP Cadets Gwyn Armfield (KA4SJV operating BD 3622), Keith Nelson (KB4DJU operating BD 3623), and Mark Byerly (KB4DJD operating BD 3841) along with CAP communicators Bill Marshall, and Cadets Daryl Shaw (operating BD 3606), Jim Bailey (operating BD 3609), and Jason Bond (operating BD 3605) responded to the emergency.

Are you a good writer?

The Repeater Journal can always use good Amateur related feature stories. Send your effort to the Journal editor. We like pictures too!

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Call for Prices on Sizes and Types

West Antenna has a huge inventory of all types of synthetic rope in all sizes to fit your every need. Write or call for a free rope catalog. Large or small, your rope requirements can be met by us.

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32nd ANNUAL

ROCK HILL HAMFEST

ON SUNDAY – OCTOBER 2, 1983

AT JOSLIN PARK ON LAKE WYLIE

FROM 0700 – UNTIL **TALKIN 146.43-147.03**

Tailgating space is included in Admission at NO Extra Charge!

PRIZES! PRIZES! PRIZES!

FIRST: KENWOOD 430 with Power Supply

SECOND: KENWOOD 7950 2-Meter Transceiver

THIRD: CUSHCRAFT A3 Tribander OR Modem of Equal Value

PRE-REG: ICOM IC2-AT 2-M Handheld

MAJOR PRIZES OBTAINED THROUGH

G.I.S.M.O.
1039 LATHAM STREET
ROCK HILL, S. C. 29730
803-366-7157
GENERAL INTERNATIONAL SERVICES (METRO OUTLET)

Bingo will be held for Ladies and Children. Noon meal plus other Concessions will be available in the park. Due to park rules and available space we will not be able to provide over-night camping spaces.

REGISTER NOW AND SAVE! **TICKETS: AT THE GATE: $4.00 ea**
PREREGIS: $3.00 ea

Note: All Pre-Registration stubs will be held and placed in the drum for IC2-AT drawing at 1100, then put back into the main prize drawing barrel.

All requests for tickets received after Sept. 23, will be held at the Gate.

PRE-REGISTRATION FORM - $3.00 EACH

Name _____ Call _____

Street _____

City _____ State _____ Zip _____

Advance Tickets are $3.00 Each

NO. REGISTERING _____ ENCLOSED $ _____

Make checks Payable to:
YORK COUNTY ARS

MAIL FORM AND CHECK TO:
LARRY W. JOHNSON
343 KUYKENDAL
ROCK HILL, S.C. 29730

Bartlett Resigns Repeater Journal Circulation Manager

Jim Bartlett, KB4WD of Greensboro has resigned his position as Circulation Manager of the Repeater Journal. Larry McLaurin, WB4VJE has assumed the duties, turning over his post of Associate Membership Chairman to David Ward, KA4LVO.

Bartlett who retained the job of being responsible for labeling all the Repeater Journals and seeing that they were placed in the mails on time for several years said greatly increased role in the Naval Reserve and personal job requirements forced him to take this action.

"I am proud to have served the amateur radio fraternity through such a prestigious organization as the CVRA-SERA. I wish it and the Repeater Journal continued success and will support it with my membership," Jim wrote in his letter of resignation.

The Circulation Manager position is an appointive position in the Publications Committee, headed by the Editor and Publisher.

Wayne Williams, K4MOB, editor and publisher of the Repeater Journal said he regrets Jim having to resign, because he has done a fabulous job of getting the book in the mail on time, and most importantly maintaining top quality control of seeing that everyone got good copies of the book.

"Jim and Carol (his wife) did a fine job for us," Wayne said, "We will miss them, but we understand his reasons for having to leave, and regretfully accept his resignation."

McLAURIN ASSUMES CIRCULATION

Williams said he has assigned the job of Circulation Manager to Larry McLaurin, WB4VJE of Greensboro. Larry is familiar with getting the book out and with some assistance from Jim will be able to carry on.

WARD TAKES ASSOCIATE MEMBERSHIP

As Larry vacates the Associate Membership Chairman slot, David Ward, KA4LVO of Winston-Salem assumes the position. David, for some time, has been carrying most of the load of Chairman of Associate Membership and was due to assume the duties in the near future.

Continued from Page 9

gram, that careful and continuing attention be given to exercising proper control over the integrity of the process through maximum use of existing ARRL volunteer field organization.

It was encouraging to see the interest and debate on these items. Hopefully some will be approved and put in effect soon.

I want to thank Charlie Wright, W4PED who was our Official Photographer and to Phil Wicker, W4ACY, past Director for his support and to the attendees who made it all possible and a success.

I hope to see all of you at LPM-84. If you have any questions or want more info on the LPM-83, feel free to call or write to Director Gay Milius, W4UG or John Kanode, N4MM, Vice Director. Our phone numbers are on page 8 of every QST.

TALK FARTHER

VoCom Power Amplifiers

Drive Level	Output Power	Model Number
150-200 mW	25W	2C025-200 mW
1.5 W	20-25W	2C025-2W
1.5W	45-50W	2C050-2W
1.5W	80-90W	2C100-2/25
2W-5W	30W	2C025-2W
2W-5W	50W	2C050-2W
2W-5W	100W	2C100-2/25
10W	100W	2C100-10/25
25W	100W	2C100-2/25
25W	100W	2C100-10/25

. . . with range-extending products from VoCom

25, 50, or 100 Watts Power — Whatever your present output level — from 200 mW hand-held on "battery saver" mode to 25W mobile or base — you can use that to drive a compact, 12V power amp from VoCom for much more talk-out power (see chart). Each model has a front panel switch to let you go "barefoot" for short hauls, plus an L.E.D. indicator to show the mode you're in. Full 10 MHz bandwidth gives you virtually unchanged power across the entire 2-meter band. High efficiency design holds down generated heat, low input VSWR saves battery drain by your radio's final amp. Use the chart to see which VoCom Power Amplifier gives you the power out you'd like from the power that you now have.

Power Pocket™ Mobile Amplifier/Charger — Simply plug in your Icom IC-2A(T) and you have a 25W synthesized mobile rig — take it out again, all charged and ready, when you want hand-held operation. Accepts any IC-2A version. Delivers 25W RF output, 2½W audio with 4" speaker to overcome road noise. Charge pocket accepts all Icom battery packs, has independent charging switch, indicator. Mic preamp makes Power Pocket compatible with any mobile microphone and with Icom speaker/mic.

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WEST VIRGINIA NOTES

By: Ted Wolfe, WD4KHL

I'm writing this just at deadline so the information included will be as up to date as possible. By waiting I'm able to report that Logan hams have reactivated the 146.37/97 repeater there. It had been off the air more than a year. It used to be on Blair Mountain but is now located on Ward Rock Mountain overlooking Logan. I had a number of reports from hams who worked it over Field Day weekend as the machine was reactivated on Saturday, June. 25.

• • •

I've also gotten reports from hams in the southern part of the state who are able to access the new N4VL 144.53/145.13 repeater located at 46-hundred feet elevation on Point Lookout Mountain West of Galax, Va. Beckley hams have worked other hams in Richmond, Va., and Spartanburg and Myrtle Beach, SC, and have monitored others in parts of Kentucky and Tennessee, through the new repeater.

• • •

Clyde Marshall, WD8KOY, had earlier coordinated that pair in West Virginia for a repeater on Bee Mountain near Marmet in Kanawha County. But since the Virginia mountaintop machine has turned out to be a wide area machine, Clyde and Glenn Diamond Jr., N4YL, have conferred. I understand Glenn has agreed to purchase the crystals from Clyde, who hasn't got his machine on the air yet, and Clyde will seek another frequency pair. We still have some open pairs around here.

• • •

Leon Moten, WD8POF, Jumping Branch — between Beckley and Hinton — has a farm at an elevation of 3-thousand feet from which he is able to work into repeaters in Virginia, Tennessee and North Carolina.

He and a group of his ham friends have coordinated 146.355/955 for a repeater at Jumping Branch. It will carry the call of Tom Ball, K8BUX.

• • •

A Special Event Station Next Month

Throughout the month of September, WB4TAL will operate as a "special event" station from within the Clemmons United Methodist Church in Clemmons, N.C. Believed by some to be the earliest organized Methodist congregation in the United States, the occasion will be the celebration of the church's 200th anniversary.

Contacts will be invited on 2 meters (FM) and on the phone portions of the HF bands. CW will be available on request. A commemerative QSL card will be sent for an S.A.S.E. to WB4TAL, P.O. Box 366, Clemmons, N.C. 27012.

Mark Rispoli, WB8DTM, called recently from Alpharetta, Ga. He's from Clarksburg, WV, and during a visit here this summer planned to put a remote base on at Clarksburg for which a local ham will be control operator. The frequency was listed in the May **Journal.** Input is 146.50 on 2-meters, simplex. The 6-meter frequency is 52.525 Mhz.

• • •

Bill Stone, W8JZU, Charleston, became a Silent Key in May. I had worked for him at various times at WCAW, WWYO and WRDS when he had financial interests in those commercial stations. I even purchased a few shares of stock in WVOW, Logan, when Bill was organizing that station just before I was drafted in 1951. Bill hadn't been active for a decade or so before his death, but he did keep his license current. He was one of the technicians who helped install the first statewide radio system for the Department of Public Safety (State Police).

• • •

There is no longer a 440-Mhz repeater on Lick Knob. The KA8EMX machine (449.90/444.80) is now located at the Emergency Operations Center in Beckley. An autopatch has been added. Also the sponsoring Appalachian Repeater Association is able to link its other two area repeaters on Bolt Mountain (144.57/145.17) and Mann Mountain (144.71/145.31) to the 440 machine thereby giving the two 2-meter repeaters access to the autopatch.

• • •

Lick Knob is still the site of the two W8FG machines operated by the Kanawha-Fayette-Clay Amateur Radio Association. The two-meter repeater on 144.87/145.47 recently observed its third anniversary as a wide area machine. There are still only about a dozen users of the club's machine (223.14/224.74).

• • •

Two Charleston hams — Jim Davis, KU8R, and Jeff Clark, N8DTN — who work for one of the commercial stations in the state's capital city, voiced the Westlink report from Dayton the weekend of the Dayton Hamvention. Jim was also moderator for the "Amateur Radio and the Media" forum at Dayton. I only got to sit in on about 20-minutes of that forum as I attended Dayton only on Saturday. You can now number me among those hams who maintain you can't do Dayton in a day. As it was my first time for Dayton, I was more interested in the new equipment than the huge flea market outside.

• • •

As a CVRA/SERA Director I get put on a lot of mailing lists. In May I received the newsletter from the Triple States Radio Amateur Club (TSRAC) which serves the Northern panhandle of West Virginia and neighboring areas in Ohio and Pennsylvania. I'm impressed that TSRAC's membership is well over one thousand.

• • •

Karl Thompson, K8KT, has been reelected as ARRL Section Communications Manager for West Virginia.

• • •

New Officers for 1983-84 for the KFCARA at Pratt, taking office in July, are: Lyle Gaston, W8FG, President; Jim Miller, WD8SCZ, V. Pres.; Bud Morris, WA8CML, Secretary-Treasurer; Harold Kidd, WD8VLH, Program/Publicity; and Larry Green, WD8RHL, Net Manager.

• • •

When the FCC tested in Charleston in May, only five of the 30 who took the Extra class code exam passed. I don't have the figures for the general test but one who did take and pass the General exam was 11-year old Eric Cowell, KA8QAU, son of Bill Cowell, WB8YJJ, Fenwick, WV. Eric operated Field Day with his dad and other hams of the Richwood area.

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Annual Directors Meeting Sked

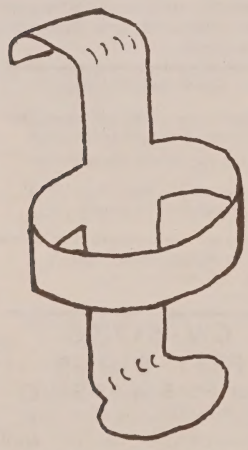
The annual CVRA-SERA Board of Directors, Vice-Directors and appointees meeting will be held Saturday evening September 3 in Shelby, N.C. The meeting as usual will be held during and immediately after dinner at the Governors Inn on Highway 74.

Although President Don Morris has not announced actual times, usual procedure over the years included meeting at about 6:30 p.m. for dutch treat dinner for Directors, Vice-Directors, Officers and appointees. Following dinner the room is open for anyone, repeater owners, repeater users to join and participate in the meeting.

The Fall meeting, the 2nd of two meetings each year is generally less formal, and more open to the general Amateur public.

Anyone wishing to attend the meeting is urged to come to the Governor's Inn, have dinner and participate. It is an excellent time to meet your CVRA-SERA officials and usually anyone with any input is urged to speak out.

Handy Holder For Your Handheld While Driving

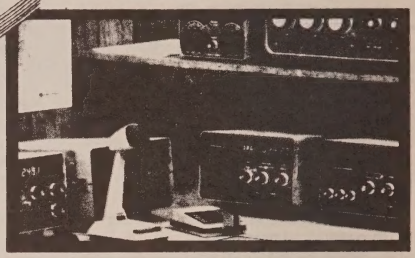


Bill Pasternak, WA6ITF, of Westlink fame showed us this one. One of the plastic drinking cup holders that slides between the window and frame of the door will hold most handy talkies very nicely.

You can pick up a cup holder at one of the larger drug stores or discount houses. This puts the H/T at a convenient height for listening and also is easy to reach when you get the urge to talk. (From L.E.A.R.A.)

FREE!

THE IMPORTANT CATALOG FOR THE ACTIVE HAM



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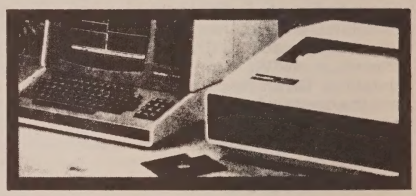
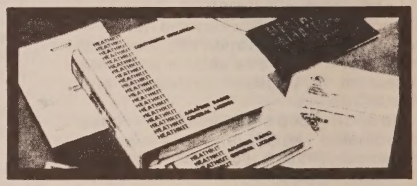
Amateur Radio's hottest ideas come from the Ham-licensed engineers at Heath. We have a *complete* line of world-famous gear you can build from proven kits for unparalleled performance, value and reliability. *There's more for the Ham at Heath!*



Computer Operation:
"Micro"-enhanced ham shacks are the wave of this hobby's future. Pacesetter Amateur Radio enthusiasts are using computers to design antennas, plot beam headings, track OSCAR and transmit RTTY. Heath and the Ham, once again, are the perfect partners in this new adventure.



Guaranteed Courses:
Heathkit/Zenith Educational Courses are the low-cost, time-saving way to learn. We have comprehensive programs to help earn your Novice, General or Advanced Class licenses. You can't fail – Heath guarantees that you will pass! – or we'll *refund the purchase price*.

Service and Accessory Equipment: Whether you need a test instrument for electronics service wor.., manufacturing and design or hobby applications, see us. All Heathkit instruments are units of high-professional quality offering our extra-value capability. Like our 20 MHz dual-trace portable oscilloscope, they're built to last and give you reliable results every time.

SEE IT ALL IN THE BIG, NEW HEATHKIT CATALOG and read about our entire line of electronic kits.

SEND FOR YOURS TODAY!

If coupon is missing, write: Heath Company, Dept. 062-893, Benton Harbor, MI 49022

In Canada: Heath Co., 1480 Dundas St. East, Mississauga, ONT L4X 2R7

Heathkit FREE CATALOG!

Please send my free Heathkit Catalog.
I want to "build in" the quality difference.
Send to: Heathkit Electronic Center
4620C W. Market Street
Greensboro, N.C. 27407

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Address _____

City _____ State _____

RJ Zip _____

The GDO and The VOM--Great! But Don't Overlook The YF

Or The Tale of The Male Chauvinist Pig...er Ham!

from "Bandspread" - Cedar Valley ARC

Every ham is familiar with a few of the more common tools of the trade such as the VOM and the GDO. But I often wonder how many realize what an invaluable, but often overlooked accessory the YF could be...

Even though she may not have a ticket, used properly she may fill the void in the shack and make your operating more pleasurable.

As a for instance, let me relate this lovely incident that occurred at this QTH. Perhaps it will bring a lump to your throat. A definition of love and affection could not be more dramatic, and it brings a tear to your eye--it just proves the point.

It was a typical Wednesday evening with the sweet little thing in the living room, eyes glued to the Wednesday night movie on the mahogany knot hole. ... Meanwhile, in the shack I tuned for some rare DX that was coming through on twenty meters. Suddenly, to my horror, the rotor quit on me and naturally in the direction away from the DX. The beam refused to budge...

I rushed upstairs and explained my plight to the YF, but she refused to leave the TV movie. Later, during a commercial, she agreed to help. Almost at the same instant a flash of lightning and a clap of thunder rattled the house.

Undaunted, she donned her lineman's belt, and at that precise moment I was proud of her as she began her ascent up the four-inch pipe mast. After all, she weighs only one hundred pounds, and the lineman's belt with cutters, pliers, hammer, small crowbar, 25 foot roll of RG8U and a few other things she needed weighed 42 pounds.

I watched her as she shinnied up the pipe, and I could see her quite well during the lightning flashes, and between rolls of thunder I could hear the rattle of tools as they dangled from the belt.

She yelled at me to turn on the flashlight and shine it at the top. She really didn't need the light to find the top, because the only way to the top was up. Anyway, she knew the way to the top as she had climbed it many times before. Maybe she just wasn't aware of the price of flashlight batteries today.

It had begun to rain quite hard, and I yelled at her to get a move on up there because I was getting wet. She had finally reached the top and yelled down for some light. I told her the lightning was so frequent that she could work during the flashes.

She got excited and dropped a hammer that almost hit me on the head! I scolded her for being so careless, and since I was getting wet, I told her I was going in the house and get dry. As a nice gesture I watched the end of the movie so I could tell her how it ended as I was sure she would want to know.

When she came in the house she refused to talk to me just because I had yelled at her while she was up on the mast. She wouldn't even listen when I tried to tell her that the movie ended with John and Marcia getting a divorce -- because John was very mean and unreasonable.

What I originally started out to say is simply that the YF can be a valuable addition to the shack although at times they can also be a bit difficult. Since she is a bit miffed, please don't print my name or call. Better yet I wish this would self-destruct after you read it.

(Ed. Note: "XYL" changed to "YF".)

Mar Vista Motel

Located on Ocean Front
Tel. 803/272-5125

605 SOUTH OCEAN BOULEVARD
OCEAN DRIVE SECTION
NORTH MYRTLE BEACH, S.C. 29582

NORTH MYRTLE BEACH
V H F AMATEUR RADIO CLUB

COMING TO THE BEACH?
FEEL FREE TO USE
OUR CLUB REPEATER
147.63 147.03
NEED INFORMATION, JUST KEY UP AND ASK!

REPEATER JOURNAL ADVERTISING RATES

Effective 1 January 1983

The Repeater Journal is a 3 column magazine with overall page dimension of 8½ x 11 inches. Our page size enables a wide variety of ad sizes from full page down to one column inch size.

Column Widths are 1 col: 2-1/4-in., 1-1/2 col: 3-1/2-in., 2 col: 4-5/8-in., 3 col: 7-1/8-in. Ad widths will be based only with the specified column widths.

DEADLINES: New advertising copy must be in the hands of our Advertising Manager no later than the first of the month prior to publication month.

DEADLINES

FEB. Issue - Jan. 1	MAY Issue - Apr. 1
AUG. Issue - Jul. 1	NOV Issue - Oct. 1

If we have not received new ad copy from you, your ad published in the previous issue will be repeated at the standard advertising rate.

CVRA REPEATER JOURNAL advertising rates apply to exact size, camera ready copy. We can provide typesetting and reduce art for your ad at our cost. Composition and typesetting for full page ad approximately $25 to $28. Half page ad from $12 to $15. Reduction of artwork for ad with no type needed is $4.50. For color ads (One additional color plus black) add $25.00.

The Repeater Journal layout size is very close to most National magazines. If you wish to use a page from one of the magazines, to promote your product, we can reshoot on the camera, insert your store name and customize for your particular application. Be sure to submit a clean, unwrinkled copy of the magazine page.

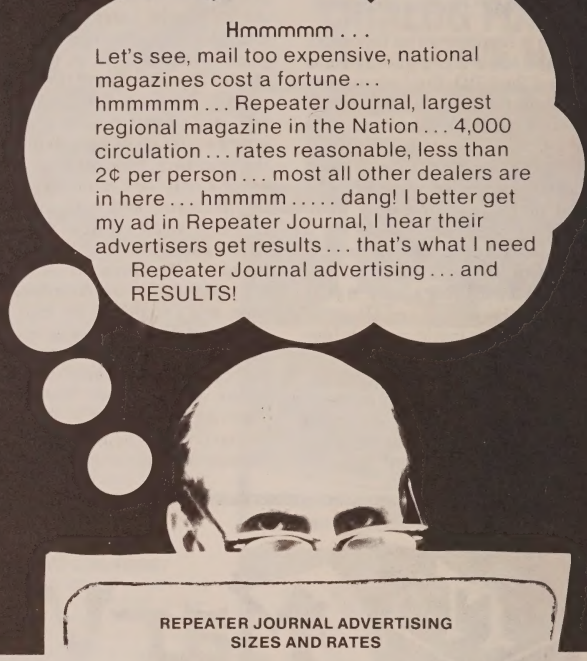
Contract advertising may be billed quarterly at the request of Advertiser. No volume discounts or contract discounts are available. It is the advertisers responsibility to cancel or request changes in advertising at the time he pays his bill, or before ad deadline, otherwise, advertising will be repeated until further notice.

BUSINESS CARDS, CLASSIFIED ADS AND HAMFEST advertising must be sent accompanied by full payment for insertion. Advertisers who have not paid for previously published advertising before upcoming issue deadline, cannot have any advertising inserted until account is paid in full.

The CVRA REPEATER JOURNAL cannot be responsible for errors in advertising, or held accountable for equipment or accessories that do not live up to the advertised claim. We are not responsible and cannot guarantee insertion of advertising received after deadline.

Advertising copy MUST be mailed to: REPEATER JOURNAL ADV. MANAGER, KEN HOLLIDAY, WA4DYY, 1923 HALIFAX COURT, HIGH POINT, N.C. 27260.

THINK


Hmmmmm . . .
Let's see, mail too expensive, national magazines cost a fortune . . . hmmmmm . . . Repeater Journal, largest regional magazine in the Nation . . . 4,000 circulation . . . rates reasonable, less than 2¢ per person . . . most all other dealers are in here . . . hmmmm . . . . . dang! I better get my ad in Repeater Journal, I hear their advertisers get results . . . that's what I need Repeater Journal advertising . . . and RESULTS!

REPEATER JOURNAL ADVERTISING SIZES AND RATES

Ins. Frt. or Ins. Bk. Cover	7-1/8" x 9-7/8"	$90.00
Full Page	7-1/8" x 9-7/8"	75.00
Full Page Bleed (any sides)	8-1/2" x 11"	90.00
2/3 Page (Vertical)	4-5/8" x 9-7/8"	55.00
1/2 Page (Horizontal)	7-1/8" x 4-3/4"	42.75
1/2 Page (Vertical)	3-1/2" x 9-7/8"	42.75
1/2 Page (Vertical 2-col)	4-5/8" x 7-1/8"	42.75
1/4 Page (Vertical Only)	3-1/2" x 4-3/4"	24.00
1/3 Page (Vertical Only)	2-1/4" x 9-7/8"	30.00
1/6 Page (Vertical)	2-1/4" x 4-3/4"	16.00
1/6 Page (Horizontal)	4-3/4" x 2-1/4"	16.00
1/12 Page (Vertical Only)	2-1/4" x 2-1/4"	9.00
Business Cards – Standard Size	(4 Issue Contract Only)	14.00/yr. In Advance

Classified Ads (30 Words Maximum per ad) In Advance..... 2.50
Color (1 additional color plus black) An Size add..... 25.00

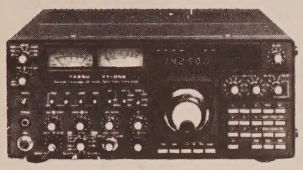
Sizes listed above are width by length in that order. Ads which run lengths between sizes listed above will be billed according to column inch rate at midpoint. Prices above are for exact size, camera ready positive photoprint, or pasteup. Camera work, typesetting additional. No charge for layout.

Now is your chance to renew your advertising program. Maybe add a little to your advertising budget and run a series of smaller ads throughout the Journal, promoting more products. You know advertising pays in the Journal!!!

G.I.S.M.O.

1039 LATHAM DRIVE • ROCK HILL, S.C. 29730

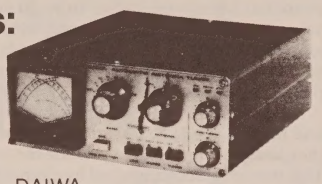
The right gear at the right price, from your full line distributor –



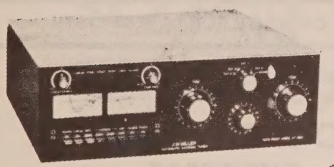
YAESU

All the top amateur lines:

YAESU · Kantronics · DAIWA · J.W. Miller · MIRAGE · DRAKE · ICOM · B&W · MFJ ENTERPRISES, INC. · SANTEC · avanti antennas · cushcraft CORPORATION The Antenna Company · hy-gain · TRIONYX IND · TEN-TEC · KENWOOD



DAIWA



J.W. MILLER

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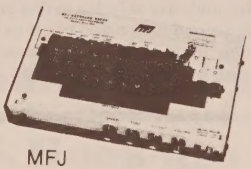

MFJ

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KANTRONICS

and more.

G.I.S.M.O. stocks them all for immediate shipment. And we service what we sell. Our A-1 quality service department takes a back seat to none.

TEN-TEC

TRI-EX CRANKUP TOWERS

B & W

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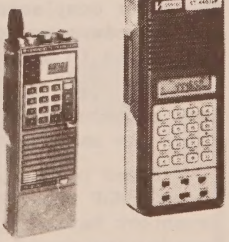
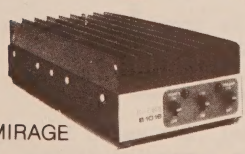


KENWOOD



MIRAGE

EXPORT ORDERS INVITED

(803)366-7157

ORDER TOLL FREE!

800-845-6183

73, THE GISMO GANG

Renewal Notice Revenge

—by David Ward, KA4LVO

I once heard that if an organization expects to grow, it must be willing to change its existing policies and procedures. But if the number of changes made in an organization is directly proportional to its growth, the CVRA-SERA should be moving into its plush Atlanta offices within the next year!

In reality, the Associate Membership department has seen quite a few changes so far this year. As you should be aware of by now, last fall the Board of Directors approved the raising of Associate Membership dues to $4.00 per year. So as of January 1st, pocedures changed to apply dues received at that rate; amounts of $3.00 were applied towards a 9-month membership, $6.00 for 1½ years, etc. This change had to be reflected in two places on the Associate Membership renewal notice.

A couple of weeks before the February journal was printed and mailed, the U.S. Postal Service sent us a note stating that they were taking steps to provide more efficient mail delivery. This would be accomplished by changing our five-digit zip code and adding four more digits. The new zip code became 27435-0655; this too had to be reflected on the renewal notices. In addition, this change needed to be made on the new membership forms just printed as well as on the mailing envelopes we use for mailing renewal notices.

Still another change for the Associate renewal notices was the adaptation of second notices for original notices. A 1982 cost-cutting measure ended the process of mailing second notices to those people not responding to the first notice. Our supply of first notices ran out with the October 1982 mailing, so a quick and easy solution to this problem was to mark out parts of the second notice and use it as a replacement.

One thing about being Associate Membership chairman: you sure get the chance to work!

SOFTWARE FOR commodore

CW & RTTY Ham Packages, Utilities, Games, Educational, Business.

• PERIPHERALS • SOFTWARE

Commodore C2N Datasette	$69.00
VIC-1210 3K Ram Expander	$39.95
VIC-1210 8K RAM Expander	$59.00
VIC-1111 16K RAM Expander	$99.00
WICO Joystick	$26.00
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Discwasher Pointmaster Joystick	$15.00
Heswriter Word Processor (C64)	$49.95
Heswriter Word Processor (VIC-20)	$39.95
Hes Agressor	$35.95
RAK CW Software (VIC-20)	$19.95
RAK RTTY Software (VIC-20)	$21.95
RAK C64 Morse	$19.95
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(Other Peripherals & Software Available)

All Items Shipped Prepaid. N.C. Residents Add 4% Sales Tax

CALL OR WRITE FOR LATEST LIST!!

Call (704) 758-5320 After 6 pm or Send Cash, Check, or Money Order To:

DISCOUNT COMPUTER SYSTEMS

P.O. BOX 1291, LENOIR, NORTH CAROLINA 28645

BLUEFIELD HAMFEST

bluefield bluefield

WV VIRGINIA AND VIRGINIA

SUNDAY, AUGUST 28, 1983
9 AM UNTIL 3 PM
EAST RIVER AMATEUR RADIO CLUB, INC.

CVRA SOUTHEASTERN REPEATER ASSOCIATION · cvra · MEMBER ·

ARRL

Dear Friends:

The Bluefield Hamfest is now in its third decade of serving the amateur radio community in five states. We are proud of our beginnings in the 1950's and feel that our record of continuous hamfests speaks for itself as a tribute to our success in making Bluefield a Hamfest for all hams.

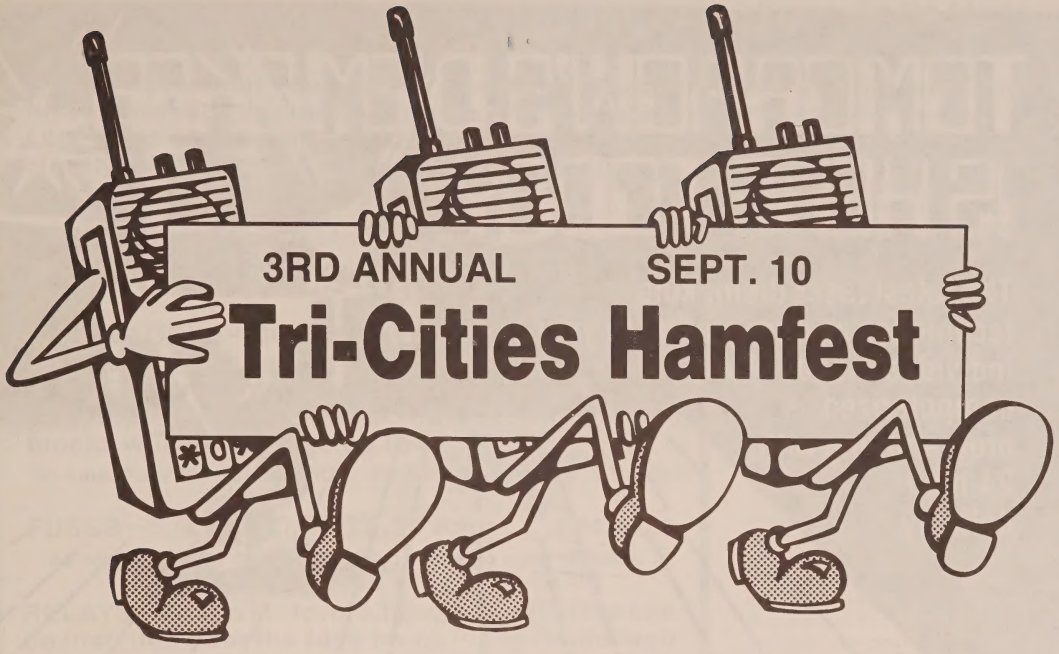
This year we have expanded the event to include computers and satellite television among our complement of dealers attending. Of course, we'll still have our fine amateur radio dealers and other miscellaneous dealers selling everything from souvenir caps and tee shirts to name tags. Our flea market will also be inside this year.

Our first prize is a Ten Tec Argosy transceiver and power supply. We'll also give away a computer, a multiband trap vertical antenna, and various other prizes during the day. The main prize drawing will take place at 3 PM for the top three prizes.

Paved parking, food on site, and activities for the kids will be provided. Talkin is on W8MOP repeater, 144.89/145.49, and on 146.52 simplex. The Hamfest is at the Brushfork National Guard Armory, 1 mile north of Bluefield on US 52, for the fourth consecutive year.

We're also proud to be an ARRL Approved Hamfest. So y'all come! Admission is only $3.00, and that includes one prize ticket (additional tickets can be purchased at the door). Hope to see you there.

Don Williams, WA4K



•Super Flea Market

•ARRL Sanctioned

•Fabulous Prizes

•R.V. Hook-ups

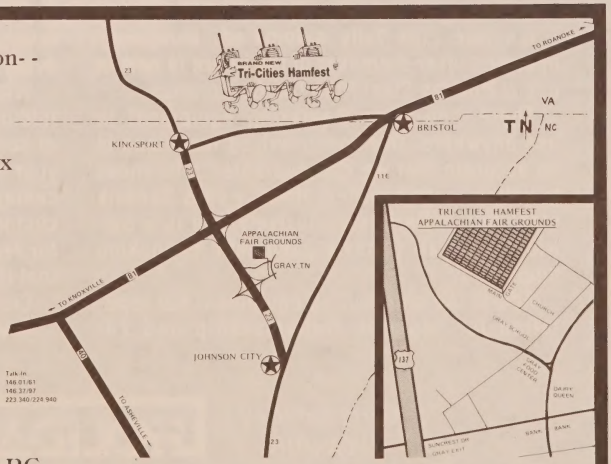
•Free Parking

- -Information Brochure Available Soon- -

Call or Write: W4TAJ - Jack Maddox
(615) 282-0746
1403 Woodside Drive
Johnson City, Tenn. 37601

ADMISSION
$2.00 ADVANCE
$3.00 AT GATE

Sponsored by: BARC JCRA KARC



TOMORROW'S DIEMAKER IS HERE TODAY

The latest laser diemaking techniques custom crafted to your individual needs. Fully computerized programming with 24-hour delivery.

It's true. The fully automated, computer-operated laser diemaker of the future is now in use at Holiday Steel Rule Die Corporation.

There's no finer diemaking equipment in use anywhere. Our computerized technique is so accurate that we can guarantee tolerances to within ± .002 inches. Holiday uses Sandvik steel rule materials exclusively and is a distributor for all Sandvik pneumatic diemaking equipment.

Add to the outstanding equipment our reputation for superior craftsmanship and 24-hour service. Whatever your die needs — whether it be folding cartons, tags, labels, irregular shapes, or something out of the ordinary — Holiday is your source. And we thrive on the high percentage of repeat business from our satisfied customers. Holiday needs no prints or samples for repeat orders, our reference number is all that is required.

Craftsmanship, service, quality, and Holiday — a winning combination for your die needs.

Larry Holiday
WA4RIR

HOLIDAY

Ken Holiday
WA4DYY

Holiday Steel Rule Die Corp., 106-B South Walnut Circle, Greensboro, N. C. 27409, 919/292-1165

FOR THE ULTIMATE MOBILE INSTALLATION

We have what you need — wire, fuse blocks, fuses, connectors, relays! You want your Mobile Low band or amplifier installation to work efficiently. We have the proper wire, fusing and parts needed for a perfect installation.

WIRE – Single Conductor-Stranded,
red or black vinyl insulation . .
#10 wire.....30¢ per foot #14 wire.....20¢ per foot

FUSE BLOCKS – Our fuse blocks are rugged holding fuses much larger than the little 3AG glass type. This prevents overheating and voltage loss with high currents. Set screws in end of fuse blocks will accept wire up to #6.
30-Amp. Fuse Block ...$3.50 60-Amp. Fuse Block ...$4.50

FUSES—5,6,7,8,10,20,25,30 Amp ....80¢ each
35,40,45,50 & 60 Amp. Fuses also available upon request.

RELAYS—These Motorola Type A style relays can be installed near the fuse block in the fenderwell and remotely switched under the dash with a small toggle switch. Excellent for switching high current lines. Relays are a closed type with screw terminals for mounting.

Relays.....Special $13.95
(Commercial Dealers, call For Dealer Prices)

OTHER ACCESSORIES AT GOOD PRICES!!

GUY WIRE INSULATORS – Compression-type porcelin. Approx 1½x2½-inches, 3/8-inch hole
Insulators .....$2.00 each 10 or more ....$1.80 each

STEEL WIRE – Zinc coated. Can be used for antennas or light guy wire, not recommended for tower guying. Sold in 10 lb. coils only.
#12½-approx. 382-feet...$13.00 #9-approx. 170-feet $13.00

MISCELLANEOUS

PL-259 CONNECTORS (U.S. Made) .....65¢ ea.
10 or more .....60¢ ea.
UG-175 or 176 ADAPTERS.....30¢ ea.
10 or more .....25¢ ea.

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CALL TOLL FREE 1-800-334-4252
NC RESIDENTS 1-800-632-0389

History To Be Made Ham Astronaut To QSO From Spacecraft

-From FCC News Sources

If all goes well, history will be made sometimes in October when ham astronaut Dr. Owen Garriott, W4LFL transmits on 2-meters from the space shuttle Columbia as it orbits some 150 miles above the earth.

The FCC has granted approval after NASA had earlier approved the experiment with Amateur Radio. An unknown brand of 2-meter H/T will be installed in the flight deck of Columbia and Dr. Garriott will use it to make contact with hams around the world on some unannounced simplex frequency between 144 and 146 mHz. W5LFL will listen and talk to as many Amateurs as he can as he participates in the first space-to-earth amateur communications. The communications will have to be made after his regular work schedule as time permits according to a NASA report.

This experiment should prove to be an exciting event for Amateurs. The exact frequency(s) Dr. Garriott will use will probably be announced, as well as times he will be on the air later this month or in September. It is known that extra power will NOT help in the assumed pileups, and will only cause interference. Some experts have suggested that Garriott will probably work split frequency, transmitting on an announced frequency and tune about a band of other frequencies picking out signals to answer, which seems the easiest way to handle such a pileup.

Any Amateurs in our Districts who DO make contact with W5LFL during the space-to-earth 2-meter experiment, please drop the "Repeater Journal" editor a note and tell us about it—times, frequencies, etc. We will compile a list and run it with a story in the November issue. (The editor)

Extra Journals Available

If you would like to send a friend a complimentary copy of The Repeater Journal, or you need an extra one for your file, they are now available.

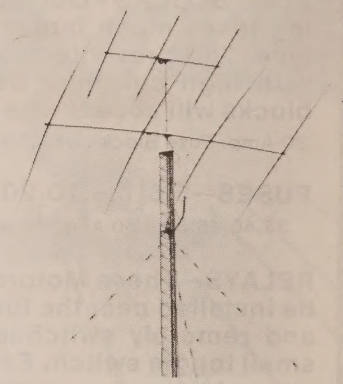
THE REPEATER JOURNAL If you wish extra copies of this issue, please send $1.00 for each Journal desired, PLUS POSTAGE of 50¢ for one, 75¢ for 2 or $1.00 for 3 or more. Multiple copies may be sent to one address only, unless 50¢ postage for each adress is included. First Class Postage will be used.

We cannot mail free postage copies for you after publishing date, please do not ask. Our bulk rate applies only to the regular mailing and cannot be used for individual copies.

WEST ANTENNA SERVICE – YOUR SOURCE FOR ROHN TOWERS AND ACCESSORIES

Rohn 25-G Straight Sections

In addition to a large stock of straight tower sections, we also have flat and sleeved top sections, trust bearings, house brackets, short base sections, rotor plates, guy assemblies, guy wire, cable clamps, turnbuckles – you will need for a complete tower installation.



Rohn Top Sections

If you have a Rohn 25-G tower at the height you want, and need the top section, we have in stock the BAS-25-G cap section. Has flat top, drilled for TB-3 bearing and a welded-in rotor plate. Length 20-inches.

Other Tower Accessories

Aluminum mast pipes, feature 2-inch OD 6061 tubing with 1/4-inch wall.

12-foot lengths, 19 lbs – IN Stock
24-foot lenghts, 38 lbs – Spec. Order

Touch rust spots on your tower and antenna bolts with RUSTOLEUM, cold galvanizing.

Large 20-oz. Industrial spray can...$5.10

Stainless Steel Strapping Kits

Stainless steel strapping kits, for strapping hard line or multiple runs of Coax. Kits come with 25, 50 or 100-feet of stainless steel strapping and buckles.

25-foot strapping kit.....$15.50
50-foot strapping kit.....$22.25
100-foot strapping kit.....$32.15

Scotchkote Electrical Coating

Made by 3-M Co. Can be used for underwater connections also. A 15 oz. can will do 50 to 100 connections.
15-oz. can Scotchkote coating.....$7.90

Hard Line and Connectors

West Antenna Service can also supply 1/2 and 7/8-inch hard line in aluminum or copper. We also have a limited stock of hard line connectors. If we do not have the connectors you need, they can be supplied within approximately 10 days.

Utility Poles & Hardware

We have a limited variety of utility pole hardware and can supply utility poles in the Greensboro, N.C. area. Call us if you have a problem we can design a system for you.

Answer your tower problems

If you hit a snag in designing your tower system and need help, we may be able to assist you. We have a large variety of parts, accessories for towers, utility poles and just about anything you can think of to complete the most complex antenna system on a tower.

WEST ANTENNA SERVICE

ROUTE 6, BOX 529-A • GREENSBORO, N.C. 27405
Harwood West, WB4RLO • Local Call 621-2473
CALL TOLL FREE:
1-800-334-4252 • IN NC – 1-800-632-0389

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Over Newstand Price

BY JOINING CVRA-SERA AS AN ASSOCIATE MEMBER ONLY $4.00 A YEAR AND GET THE NEW REPEATER JOURNAL EVERY QUARTER

RJ0883

YES - I WANT TO JOIN CVRA-SERA AND GET THE JOURNAL!
CVRA-SERA ASSOCIATE MEMBERSHIP APPLICATION

Name _____ Call _____
Address _____ Date _____
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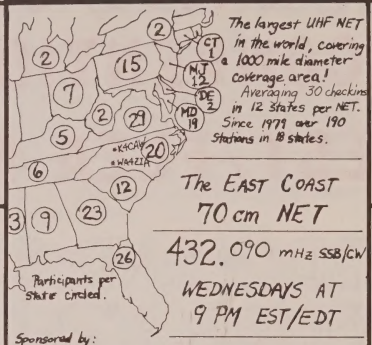

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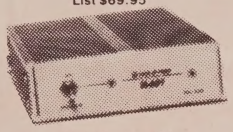

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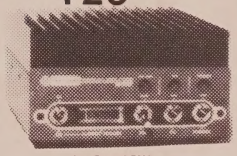

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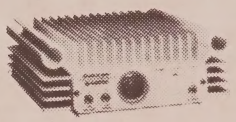

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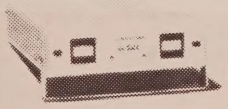

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Out: 15-20W

HL-20U
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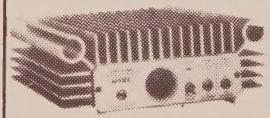
Compact, lightweight amplifier for the 70 cm band. Covers 440-450 mhz. FM/SSB/CW operation. Hi/lo output power switch. Mobile bracket. Reverse polarity protection. Draws 4A max.



In: 5-17W
Out: 60-90W

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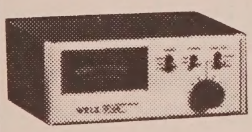

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DATE:	*November 26 + 27*
HOURS:	*9:00 A.M. - 5:00 P.M.*
LOCATION:	*National Guard Armory- Franklin Blvd.*
FOOD:	*Will Be Furnished*
GRAND PRIZE:	*430 Kenwood Pre-Reg.— Icom-2AT (Sat.)*
REGISTRATION:	*$3.50 For Advance Tickets*
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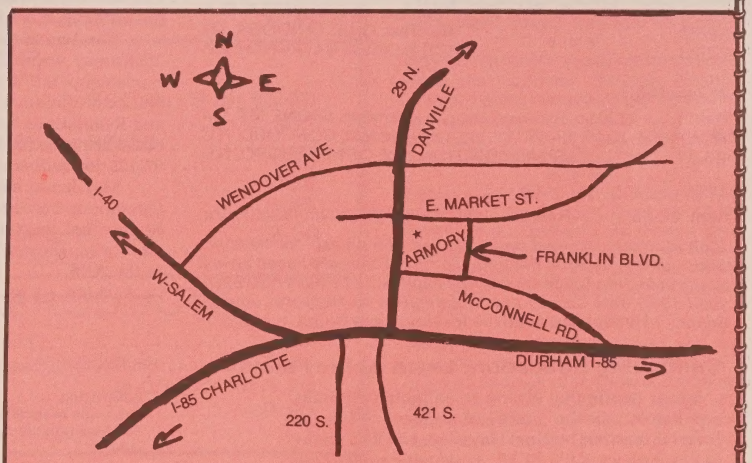

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Coming Events

AUGUST

6-7 ..... Hamfest, JACKSONVILLE, FLA.
7 ..... SVARC Hamfest (Winchester), BERRYVILLE, VA.
13-14 ..... Delta Division ARRL Conv., SHREVEPORT, LA.
20-21 ..... Hamfest, HUNTSVILLE, ALA.
27-28 ..... Hamfest, MONTGOMERY, ALA.
28 ..... East River ARC Hamfest, BLUEFIELD, WVA.
28 ..... Hamfest, MADISON, GA.
28* ..... Hamfest, MORGANTOWN, WVA.

SEPTEMBER

3 ..... CVRA-SERA 2nd ANNUAL MEETING, SHELBY, N.C.
3-4 ..... Hamfest, SHELBY, N.C.
10-11 ..... Central Georgia Hamfest, WARNER ROBBINS, GA.
11* ..... Hamfest, GAITHERSBURG, MD.
17* ..... WCARS II Swapfest, GREENWOOD, S.C.
18* ..... Hamfest, CINCINNATTI, OH.
18 ..... Hamfest, AUGUSTA, GA.
24-25 ..... Greater Louisville Hamfest, LOUISVILLE, KY.
25 ..... Hamfest, GAINESVILLE, GA.

OCTOBER

2 ..... Hamfest, ROCK HILL, S.C.
2 ..... Hamfest, ROME, GA.
7-9 ..... ARRL National Convention, HOUSTON, TX.
8-9 ..... Hamfest & Computer Show, VIRGINIA BEACH, VA.
9 ..... Hamfest, MAYESVILLE, N.C.
15-16* ..... Hamfest, CLEARWATER, FLA.
22-23 ..... Hamfest, CHATTANOOGA, TN.
22-23 ..... ARCS Hamfest, SAVANNAH, GA.

NOVEMBER

5-6 ..... Hamfest, STONE MT., GA.
6* ..... Hamfest, CONCORD, N.C.
26-27 ..... Greater GBO Hamfest, GREENSBORO, N.C.

1984

Sept. 22-23 ..... Roa. Div. ARRL Conv., VIRGINIA BEACH, VA.

(Editor's Note) Hamfest dates marked with an asterisk have not been confirmed to the Repeater Journal. Dates are based on last year's schedule. Clubs sponsoring hamfests who have not sent in their 1983 date should send information to Repeater Journal Editor. Hamfest Ad deadline for Nov. issue Is Oct. 1, 1983.

Continuing Education! Learn Abbreviations

In our continuing efforts to enlighten all hams and hamlets in the glories of amateur radio, we found this article by Noel Novision, N6DQC, in the Santa Barbara KEY KLIX. If we memorize these abbreviations it should expand our vocabularies and allow us to express ourselves in a more explicit manner. So for your edificaiton here is the complete list of abbreviated good byes;

68 Downright terrible regards
69 Poor regards
70 Mediocre regards
71 Good regards
72 Better regards
73 Best regards
74 Great, superior and wonderful regards
75 I am speechless
5 1/2 A fleeting smile
11 A sincere handshake
22 A firm pat on the back
44 Only a hug since I don't kiss on the first QSO
88 Love and kisses
704 Part 97.119 prohibits further description

—From R.F. CARRIER (Dayton)

FCC DOES RECOGNIZE AMATEUR COORDINATION OF REPEATERS

—From W5YI Reports

In a letter to Stephen Mendelsohn, WA4DHF, President of the Tri-State Amateur Repeater Council, the FCC has indicated that it recognizes repeater coordination by Amateur Radio Operators and that it will issue citations to those who refuse to abide by it.

Mendelsohn had written the Commission seeking their views on frequency coordination and how continued transmitting by outsiders on amateur coordinated repeater frequencies would be handled.

James C. McKinney, FCC Chief of the Private Radio Bureau, replied, "The Commission's fundamental policy in this matter was stated in the Report and Order in Docket #18803 (Repeaters in the Amateur Radio Service): i.e. 'The Commission is persuaded by the comments and by observation that regional and national frequency planning and coordination by amateur radio operators themselves can result in the best spectrum utilization appropriate to the service.'"

McKinney said that the only national planning for the Amateur Radio Service that has come to their attention is that done by the American Radio Relay League.

"In view of this widespread acceptance of their band plans, we conclude that any amateur who selects a station transmitting frequency not in harmony with those plans is not operating in accord with good amateur practice."

"Continued transmission on (uncordinated) frequencies," McKinney wrote, "that creates interference to (coordinated) repeater operation would be cause for the issuance of an Office Notice of Violation of Section 97.78 of the Commission's Rules and Regulations for not observing good amateur practice and could be cause for an additional Notice of Violation of Section 97.125 for deliberate and intentional interference."

McKinney also sent a copy of his ruling to their Field Operations Bureau - Enforcement Division. This is believed to be the first written ruling that indicates the FCC will issue citations to those who fail to observe "gentlemen's aggrements" in the ARS.

CVRA-SERA FINANCIAL REPORT
JUNE 30, 1983

REVENUES

Advertising	$ 3,646.50
Associate Membership dues	5,377.00
Full Membership dues	1,845.00
Other	13.50
	$10,882.00

EXPENDITURES

Journal mailing	$1,360.24	
Journal printing	7,240.31	
Directors meetings	388.01	
Office expenses	75.48	
Postage - other than Journal	70.40	
Printing - other than Journal	341.76	
Telephone	226.88	9,703.08
EXCESS OF REVENUES OVER EXPENSES		$ 1,178.92

Balances, January 1, 1983

Expenses advanced	$ 700.00	
Invested in copy machine	2,240.00	
Cash in bank	1,135.60	4,075.60
EQUITY TO ACCOUNT FOR		$ 5,254.52
Less: Expenses advanced	$ 800.00	
Invested in copy machine	2,240.00	3,040.00
CASH IN BANK		$ 2,214.52

Ray Adams, N4BAQ, Treas.

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Teloscoping ¼-wave Whips
BNC – 5/16x32 – PL259 ..... 8.95
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For 2-Meters • For 220 mHz.
Flexible Duck (By Santec-Fits all BNC) 8.95

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Amphenol BNC Male connector 2.25
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COAX-SEAL 50-ft. roll ..... (1.50 Shipping) 10.50
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CLASSIFIED

Repeater Journal Classified ads are available to members to advertise Amateur and Electronic items for sale, buy, swap or trade. Items need not necessarily be electronic related. The CVRA-SERA assumes no responsibility as to the accuracy of description of equipment or its condition. Total responsibility lies with the advertiser and the buyer. CLASSIFIED AD RATE: Non-commercial or Commercial, $2.50 per ad. Enclose check with ad in advance of publication. Please limit classifieds to a maximum of 30 words.
DEADLINE FOR CLASSIFIED: 30 days prior to date of publication. Deadline dates are Jan. 1, April 1, July 1 and Sept. 1.

FOR SALE — Satellite equipment – Advanced receiver Research P432VD Preamp, R435VD Converter for 435 mHz. Cushcraft A144-10T dual 5-Element yagis, A432-20T dual 10-element yagis, ARX-2 Ringo Ranger 144-148 mHz. WALLY, K4UAS, 158 Buckingham Road, Winston-Salem, N.C. 27104.

• • •

KDK-2030 now has 2-year extended service period and new low price. 25-watt Synthesized 2-meter mobile transceiver, mobile bracket, touch-tone mike. WILLIAMS RADIO for SANTEC, KDK, TOKYO HY-POWER, WELZ. See ads this issue.

• • •

CRYPTOGRAPHY items wanted. Cipher machines, devices (M-209, Enigma, others), books, manuals, anything related to secret codes and ciphers. LOU KRUH, WB2EZK, 17 Alfred Road, Merrick, N.Y. 11566 (516) 378-0263.

• • •

LEND A HELPING HAND. Many of your friends out there don't know about the REPEATER JOURNAL, do them a favor and show them your copy and give them the application to join and receive the next issue. They'll thank you for it, and so will we!

• • •

HAMFEST CHAIRMEN — We are now compiling the 1984 Hamfest Calendar. If the date for your 1984 show is confirmed, send it to the JOURNAL editor. His address is listed on Page 1. Listing your date early could prevent conflicting dates.

WANTED: 220 mHz mobile transceiver, 10-watts or more. Would prefer synthesized versions Midland or Yaesu; or Midland, Clegg, Yaesu crystal type. Will buy pair if price is right. RAY ADAMS, N4BAQ, see address page 2.

New CVRA Zip Code

The Greensboro Post Office Box for CVRA-SERA has a new zip code. The Post Office in sweeping changes to ultimately initiate the new 9-digit zip code is beginning by changing certain 5-digit zip codes at this time. The new Zip Code for all Greensboro Post Office Box mail for CVRA-SERA is 27435.

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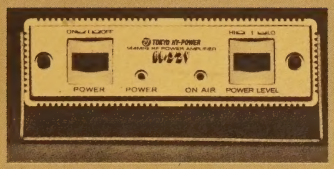

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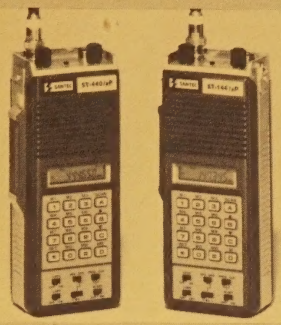

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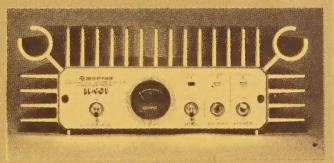

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